

MHC-GRX90AV/RXD10AV

HCR-GRX90AV/RXD10AV

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
MHC-RXD10AV
E Model
Australian Model
MHC-GRX90AV

- MHC-GRX90AV/RXD10AV is composed of following models.
As for the service manual, it is issued for each component model,
then, please refer to it.

COMPONENT MODEL NAME FOR MHC-GRX90AV/RXD10AV.

	MHC-GRX90AV		MHC-RXD10AV
	E, EA (GRAY)	EXCEPT E,EA (SILVER)	
COMPACT DISC DECK RECEIVER SYSTEM	HCD-GRX90AV		HCD-RXD10AV
FRONT SPEAKER SYSTEM	SS-GRX90GAV	SS-GRX90AV	SS-RXD10AV
CENTER SPEAKER SYSTEM	SS-CN125G	SS-CN125	
REAR SPEAKER SYSTEM	SS-SR125G	SS-SR125	

HCR-GRX90AV is composed of HCD-GRX90AV, SS-CN125/CN125G and SS-SR125/SR125G.
HCR-RXD10AV is composed of HCD-RXD10AV, SS-CN125 and SS-SR125.

•Abbreviation

CND : Canadian model
G : German model
EA : Saudi Arabia model
SP : Singapore model
AR : Argentine model
MX : Mexican model
TH : Thai model
AUS : Australian model

PARTS LIST

Ref No. Part No. Description Remark

ACCESSORIES & PACKING MATERIALS

1-418-128-11	COMMANDER, STANDARD (RM-SR10AV)(EXCEPT E, EA)
1-418-128-21	COMMANDER, STANDARD(RM-SR10AVB) (E, EA)
1-501-374-11	ANTENNA, LOOP
1-501-659-41	ANTENNA (FM)(US, CND, E, EA, SP, AR, MX, TH, AUS)
1-501-804-11	ANTENNA (FM)(AEP, UK, G, CIS)
1-769-317-11	CORD, SPEAKER(FRONT)(2.5m)
1-769-433-11	CORD, SPEAKER(CENTER) (10m)
1-769-433-21	CORD, SPEAKER(REAR) (2.5m)
3-865-612-11	MANUAL, INSTRUCTION(ENGLISH)(EXCEPT G, TH)
3-865-612-21	MANUAL, INSTRUCTION(FRENCH)(CND, EA)
3-865-612-31	MANUAL, INSTRUCTION(SPANISH)(AR, MX)
3-865-612-41	MANUAL, INSTRUCTION (FRENCH, SPANISH,)(AEP, E, SP)
3-865-612-51	MANUAL, INSTRUCTION(CHINESE)(SP)
3-865-612-61	MANUAL, INSTRUCTION(ARABIC)(EA)
3-865-612-71	MANUAL, INSTRUCTION(GERMAN)(AEP, G)
3-865-612-81	MANUAL, INSTRUCTION (DUTCH, ITALIAN, PORTUGUESE)(AEP)
3-865-612-91	MANUAL, INSTRUCTION (POLISH, RUSSIAN)(AEP, CIS)
3-865-614-11	MANUAL, INSTRUCTION(CZECH)(AEP, CIS)
3-865-614-21	MANUAL, INSTRUCTION(HUNGARIAN)(AEP, CIS)
3-865-614-31	MANUAL, INSTRUCTION(TURKISH)(AEP, CIS)
3-865-614-41	MANUAL, INSTRUCTION(GREEK)(AEP, CIS)
3-865-615-21	MANUAL, INSTRUCTION(PORTUGUESE)(AEP)
3-865-615-31	MANUAL, INSTRUCTION(ENGLISH, THAI)(AEP)
4-210-254-01	CUSHION (FOOT)(FRONT SPEAKER)
4-972-322-01	FOOT (Y)(CENTER SPEAKER)
4-981-643-01	COVER, BATTERY (FOR RM-SR10AVB)
4-981-643-21	COVER, BATTERY (FOR RM-SR10AV)

SPECIFICATIONS

General

Power requirements

North American models: 120 V AC, 60 Hz
European model: 230 V AC, 50/60 Hz
Australian model: 230 - 240 V AC, 50/60 Hz
Mexican model: 120 V AC, 50/60 Hz
Thai model: 220 V AC, 50/60 Hz
Other models: 120 V, 220 V or 230 - 240 V AC, 50/60Hz
Adjustable with voltage selector.

Power Consumption

U.S.A model: 200 watts
Canadian model: 180 watts
European model: 210 watts
Other models: 240 watts

Supplied accessories

AM loop antenna (1)
Remote Commander (1)
Batteries (2)
FM lead antenna (1)
Speaker cords (5)
Front speaker pads (8)
Center speaker pads (4)

Design and specifications are subject to change without notice.

MINI Hi-Fi COMPONENT SYSTEM

SONY®



HCD-GRX90AV/RXD10AV

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
HCD-RXD10AV
E Model
Australian Model
HCD-GRX90AV



HCD-GRX90AV/RXD10AV is the tuner, deck, CD and amplifier section in MHC-GRX90AV/RXD10AV.

Photo: HCD-RXD10AV (E model)

This stereo system is equipped with the Dolby B-type noise reduction system*.

* Manufactured under license from Dolby Laboratories Licensing Corporation.
DOLBY and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	HCD-GRX80/RXD8/RXD8S
	CD Mechanism Type	CDM38LH-5BD32L
	Base Unit Type	BU-5BD32L
	Optical Pick-up Type	KSS-213D/Q-N
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-GRX8/R800/RX88/RX99
	Tape Transport Mechanism Type	TCM-230AWR2/230PWR2

SPECIFICATIONS

Amplifier section

Center Speaker:

Continuous RMS power output (reference)
40 watts
(8 ohms at 1 kHz,
1% THD)

Rear Speaker:

Continuous RMS power output (reference)
35 + 35 watts
(8 ohms at 1 kHz,
1% THD)

Canadian model

Front Speaker:

Continuous RMS power output (reference)
80 + 80 watts
(8 ohms at 1 kHz,
10% THD)

Total harmonics distortion

Less than 0.07%
(8 ohms at 1 kHz, 60 W)

Center Speaker:

Continuous RMS power output (reference)
30 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

Continuous RMS power output (reference)
30 + 30 watts
(8 ohms at 1 kHz,
10% THD)

European model

Front Speaker:

DIN power output (rated) 65 + 65 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
80 + 80 watts
(8 ohms at 1 kHz,
10% THD)

Music power output (reference)

120 + 120 watts
(8 ohms at 1 kHz,
10% THD)

Center Speaker:

DIN power output (rated) 25 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
30 watts
(8 ohms at 1 kHz,
10% THD)

Music power output (reference)

45 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

DIN power output (rated) 25 + 25 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
30 + 30 watts
(8 ohms at 1 kHz,
10% THD)

Music power output (reference)

45 + 45 watts
(8 ohms at 1 kHz,
10% THD)

Other models:

The following measured at AC 120/220/240 V,
50/60 Hz

Front Speaker:

DIN power output (rated) 95 + 95 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
120 + 120 watts
(8 ohms at 1 kHz,
10% THD)

Center Speaker:

DIN power output (rated) 30 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
35 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

DIN power output (rated) 30 + 30 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
35 + 35 watts
(8 ohms at 1 kHz,
10% THD)

— Continued on next page —

COMPACT DISC DECK RECEIVER



MICROFILM

SONY®

Inputs	
VIDEO IN: (phono jacks)	voltage 250 mV, impedance 47 kilohms
MD IN: (phono jacks)	voltage 450 mV, impedance 47 kilohms
DVD INPUT:	
FRONT IN: (phono jacks)	voltage 450 mV, impedance 47 kilohms
REAR IN: (phono jacks)	voltage 450 mV, impedance 47 kilohms
CENTER IN: (phono jacks)	voltage 450 mV, impedance 47 kilohms
WOOFER IN: (phono jacks)	voltage 450 mV, impedance 47 kilohms
MIX MIC: (phone jack)	sensitivity 1 mV, impedance 10 kilohms
Outputs	
MD OUT: (phono jacks)	voltage 250 mV impedance 1 kilohms
PHONES: (stereo phone jack)	accepts headphones of 8 ohms or more
FRONT SPEAKER:	accepts impedance of 8 to 16 ohms
REAR SURROUND SPEAKER:	accepts impedance of 8 to 16 ohms
CENTER SURROUND SPEAKER:	accepts impedance of 8 to 16 ohms
SUPER WOOFER:	Voltage 1 V, impedance 1 kilohms

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser ($\lambda=780\text{nm}$) Emission duration: continuous
Laser output	Max. $44.6 \mu\text{W}^*$ *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength	780 – 790 nm
Frequency response	2 Hz – 20 kHz ($\pm 0.5 \text{ dB}$)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
CD OPTICAL DIGITAL OUT (Square optical connector jack, rear panel)	
Wavelength	660 nm
Output Level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	40 – 13,000 Hz ($\pm 3 \text{ dB}$), using Sony TYPE I cassette 40 – 14,000 Hz ($\pm 3 \text{ dB}$), using Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

UKV tuner section

(3 band (FM-AM-UKV) models only)

Tuning range	65.0 – 74.0 MHz Stereo Plus
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AM tuner section

Tuning range	530 – 1,710 kHz
2 Band type:	(with the interval set at 10 kHz)
North American models:	531 – 1,710 kHz (with the interval set at 9 kHz)
European models:	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz)
3 Band type:	530 – 1,710 kHz (with the interval set at 10 kHz)
Middle Eastern models:	
MW:	531 – 1,602 kHz (with the interval set at 9 kHz)
SW:	5.95 – 17.90 MHz (with the interval set at 5 kHz)

Other models:

MW:	531 – 1,602 kHz (with the interval set at 9 kHz)
	530 – 1,710 kHz (with the interval set at 10 kHz)
SW:	5.95 – 17.90 MHz (with the interval set at 5 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements

North American models:	120 V AC, 60 Hz
European models:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Mexican model:	120 V AC, 50/60 Hz
Thai model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption

U.S.A. model:	200 watts
Canadian model:	180 watts
European model:	210 watts
Other models:	240 watts

Dimensions (w/h/d)

Approx. 280 x 340 x 395 mm (11 ¹ / ₈ x 13 ¹ / ₂ x 15 ⁵ / ₈ in.)

Mass

U.S.A. models:	Approx. 11.0 kg (24 lb 4 oz)
Canadian models:	Approx. 10.9 kg
European models:	Approx. 11.3 kg
Other models:	Approx. 12.2 kg

Supplied accessories:

AM loop antenna (1)
Remote Commander (1)
Batteries (2)
FM lead antenna (1)
Speaker cords (5)
Front speaker pads (8)
Center speaker pads (4)

Design and specifications are subject to change
without notice.

CAUTION

Use of controls or adjustments or performance of procedures
other than those specified herein may result in hazardous ra-
diation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be
damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C
during repairing.
- Do not touch the soldering iron on the same conductor of the
circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering
or unsoldering.

Laser component in this product is capable of emitting radiation
exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

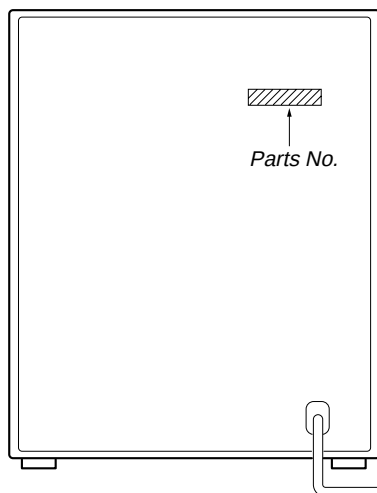
This appliance is classified as
a CLASS 1 LASER product.
The CLASS 1 LASER PROD-
UCT MARKING is located on
the rear exterior.

This caution
label is located
inside the unit.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND
INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR
SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE
FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRALUNG, WENN
ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG
ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALT-
TIINA NÄKYMÄTTÖMÄLLÄ LASERSÄTEILYLLÄ. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLIG LASERSTRÅLING NÅR DESSA DEL ÄR ÖPPNAD
OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG
SIKKERHEDSLAS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSU-
GÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

MODEL IDENTIFICATION

— BACK PANEL —



PARTS No.	MODEL	PRODUCT COUNTRY
4-214-455-0□	GRX90AV: E2, AR	INDONESIA
4-214-455-1□	GRX90AV: EA	INDONESIA
4-214-455-2□	GRX90AV: SP	INDONESIA
4-214-455-5□	GRX90AV: MX	INDONESIA
4-214-455-6□	GRX90AV: AUS	INDONESIA
4-214-455-7□	RXD10AV: AEP, G, UK, CIS	INDONESIA
4-214-455-9□	RXD10AV: US	INDONESIA
4-215-171-0□	RXD10AV: CND	INDONESIA
4-215-171-1□	GRX90AV: E3	INDONESIA
4-215-171-2□	GRX90AV: TH	THAI
4-215-171-3□	RXD10AV: AEP	THAI

• Abbreviation

- CND : Canadian model
- G : German model
- EA : Saudi Arabia model
- MX : Mexican model
- E2 : Without SW tuner E model
- E3 : With SW tuner E model
- SP : Singapore model
- AUS : Australian model
- AR : Argentine model
- TH : Thai model

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveform is output four times.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE $\triangle$ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

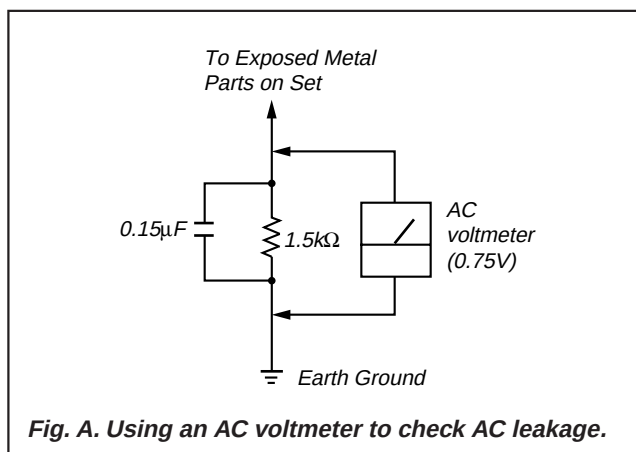


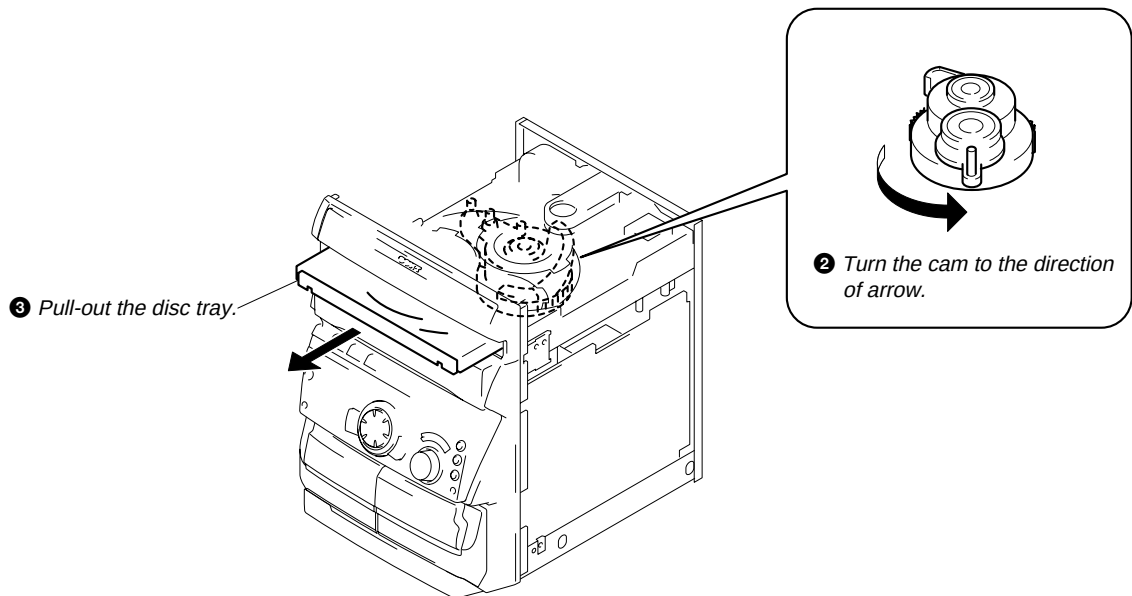
TABLE OF CONTENTS

1. SERVICING NOTE	5
2. GENERAL	6
3. DISASSEMBLY	
3-1. Loading Panel	8
3-2. Front Panel	8
3-3. Cassette Lid and Tape Mechanism	9
3-4. CD SW Board and Panel Board	9
3-5. Disc Tray	10
4. SERVICE MODE	11
5. MECHANICAL ADJUSTMENTS	14
6. ELECTRICAL ADJUSTMENTS	14
7. DIAGRAMS	
7-1. Circuit Boards Location	18
7-2. Block Diagrams	
• CD Section	19
• Deck Section	21
• Main Section	23
• Main Power/Sub Power Section	25
• Display Section	27
7-3. Printed Wiring Board – BD (CD) Section –	31
7-4. Schematic Diagram – BD (CD) Section –	33
7-5. Printed Wiring Board – Main Section –	35
7-6. Schematic Diagram – Main (1/4) Section –	37
7-7. Schematic Diagram – Main (2/4) Section –	39
7-8. Schematic Diagram – Main (3/4) Section –	41
7-9. Schematic Diagram – Main (4/4) Section –	43
7-10. Printed Wiring Board – Leaf SW Section –	45
7-11. Schematic Diagram – Leaf SW Section –	45
7-12. Schematic Diagram – Deck Section –	47
7-13. Printed Wiring Board – Deck Section –	49
7-14. Schematic Diagram – Front Panel Section –	51
7-15. Printed Wiring Board – Front Panel Section –	53
7-16. Printed Wiring Board – Panel Section –	55
7-17. Schematic Diagram – Panel (1/2) Section –	57
7-18. Schematic Diagram – Panel (2/2) Section –	59
7-19. Schematic Diagram – Surround Section –	61
7-20. Printed Wiring Board – Surround Section –	62
7-21. Schematic Diagram – CD Motor Section –	63
7-22. Printed Wiring Board – CD Motor Section –	65
7-23. Schematic Diagram – Trans Section –	67
7-24. Schematic Diagram – Sub Trans Section –	69
7-25. Printed Wiring Board – Trans Section –	71
7-26. Printed Wiring Board – Sub Trans Section –	72
7-27. IC Block Diagrams	73
7-28. IC Pin Functions	74
8. EXPLODED VIEWS	
8-1. Case Section	77
8-2. Chassis Section	78
8-3. Front Panel Section	79
8-4. CD Mechanism Deck Section-1 (CDM38LH-5BD32L)	80
8-5. CD Mechanism Deck Section-2 (CDM38LH-5BD32L)	81
8-6. Base Unit Section (BU-5BD32L)	82
8-7. TC Mechanism Section-1 (TCM230AWR2/230PWR2)	83
8-8. TC Mechanism Section-2 (TCM230AWR2/230PWR2)	84
9. ELECTRICAL PARTS LIST	85

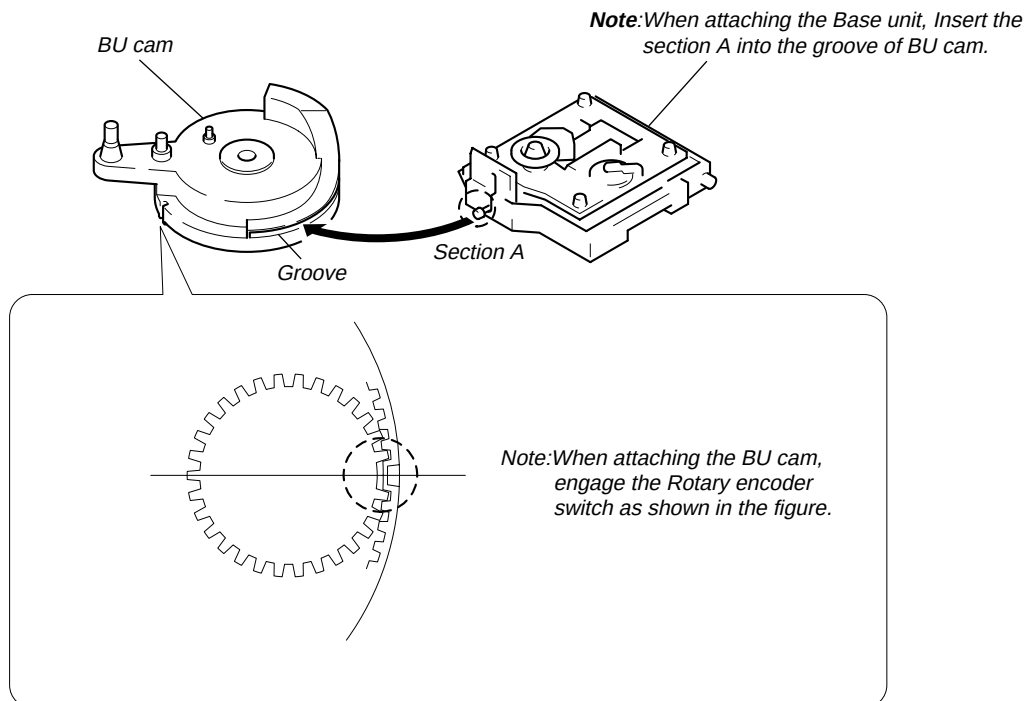
SECTION 1 SERVICING NOTE

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

- 1 Remove the Case.



Note for Installation (ROTARY ENCODER)



CD-TEXT

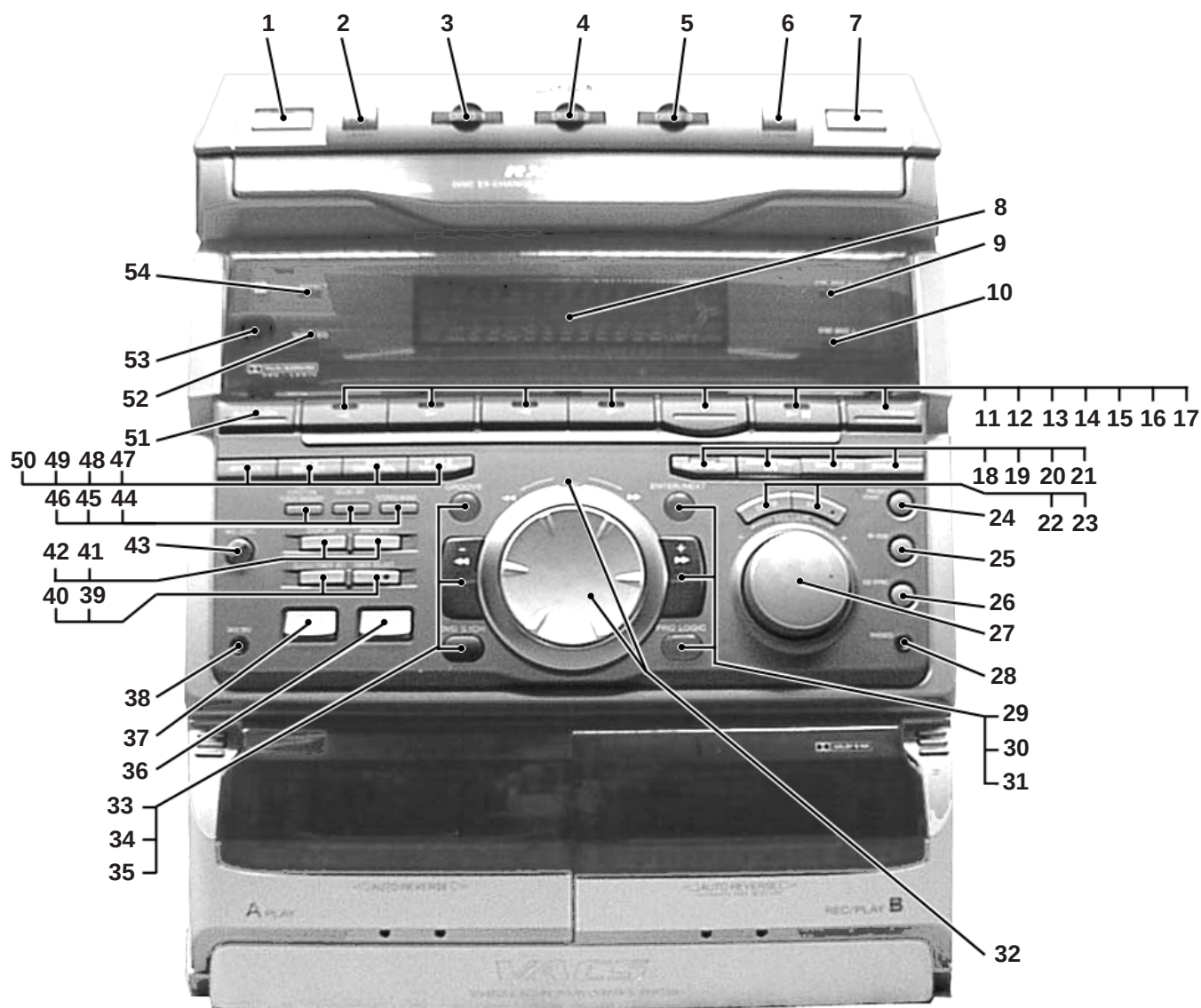
This unit is provided with a simple CD-TEXT display function.

The CD-TEXT contents of 20 tracks are displayed on the fluorescent display tube.

Since the function is simple, some special characters may not be displayed, or may be displayed as other characters.

SECTION 2 GENERAL

Front Panel



LOCATION OF PARTS AND CONTROLS

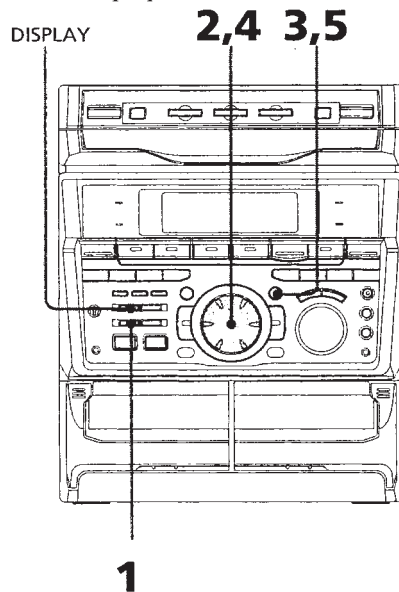
- | | | |
|--|--|--|
| 1 I/⏻ button | 20 SYNC EQ button | 39 TIMER SELECT button and indicator |
| 2 DEMO (STANDBY) button (GRX90AV)
DEMO (STANDBY) POWER SAVE
button (RXD10AV) | 21 SYNC BASS button | 40 CLOCK TIMER SET button |
| 3 DISC 1 button and indicator | 22 DBFB button | 41 SPECTRUM ANALYZER button |
| 4 DISC 2 button and indicator | 23 DSP button and indicator | 42 DISPLAY button |
| 5 DISC 3 button and indicator | 24 REC PAUSE/START button and
indicator | 43 MIC LEVEL knob |
| 6 DISC SKIP/EX-CHANGE button | 25 HI-DUB button | 44 STEREO/MONO button |
| 7 ⏻ (Eject) button | 26 CD SYNC button | 45 PLAY MODE/DOLBY NR button
(EXCEPT AEP, UK, German, CIS
model) |
| 8 Display window | 27 VOLUME knob | PLAY MODE/DOLBY NR/PTY button
(AEP, UK, German, CIS model) |
| 9 SYNC BASS H button and indicator | 28 PHONES jack | 46 EDIT DIRECTION/TUNER MEMORY
button |
| 10 SYNC BASS L button and indicator | 29 ENTER/NEXT button and indicator | 47 P FILE MEMORY button |
| 11 ◀ (A deck) button and indicator | 30 ►► + button and indicator | 48 GEQ CONTROL button |
| 12 ▶ (A deck) button and indicator | 31 PRO LOGIC button and indicator | 49 FILE SELECT button |
| 13 ◀ (B deck) button and indicator | 32 JOG/◀◀▶▶ dial and
indicator | 50 EFFECT button |
| 14 ▶ (B deck) button and indicator | 33 GROOVE button and indicator | 51 FUNCTION button |
| 15 ■ button | 34 ◀◀ button and indicator | 52 SYNC EQ button |
| 16 ► (CD) button and indicator | 35 DVD 5.1 CH button | 53 Remote sensor |
| 17 TUNER/BAND button | 36 FLASH button | 54 EFFECT indicator |
| 18 NON-STOP button and indicator | 37 LOOP button | |
| 19 KARAOKE PON/MPX button | 38 MIX MIC jack | |

Step 3: Setting the time

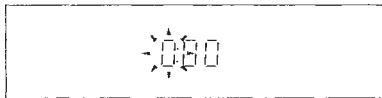
You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model, and a 12-hour system for other models.

The 24-hour system model is used for illustration purposes.

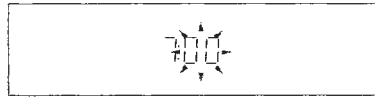


- 1 Press **CLOCK/TIMER SET**.
The hour indication flashes.



- 2 Turn the jog dial to set the hour.

- 3 Press **ENTER/NEXT**.
The minute indication flashes.



- 4 Turn the jog dial to set the minute.

- 5 Press **ENTER/NEXT**.
The clock starts working.

Tip

If you've made a mistake, start over from step 1.

To change the time

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

- 1 Press **CLOCK/TIMER SET**.
- 2 Turn the jog dial to select **SET CLOCK**.
- 3 Press **ENTER/NEXT**.
- 4 Perform steps 2 through 5 above.

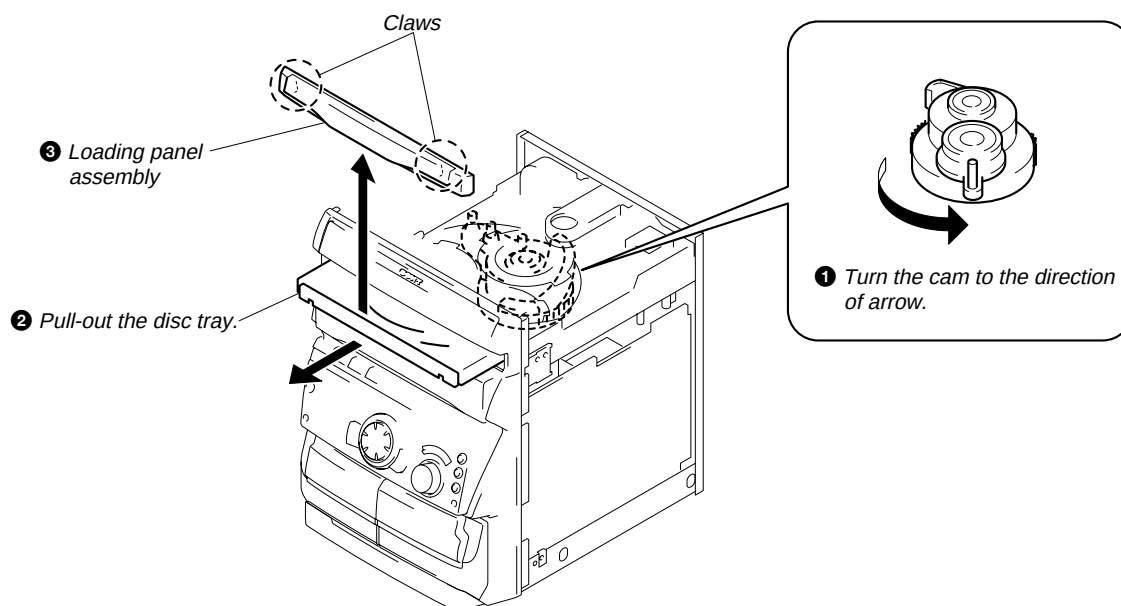
Note

The clock settings are cancelled when you disconnect the power cord or if a power failure occurs.

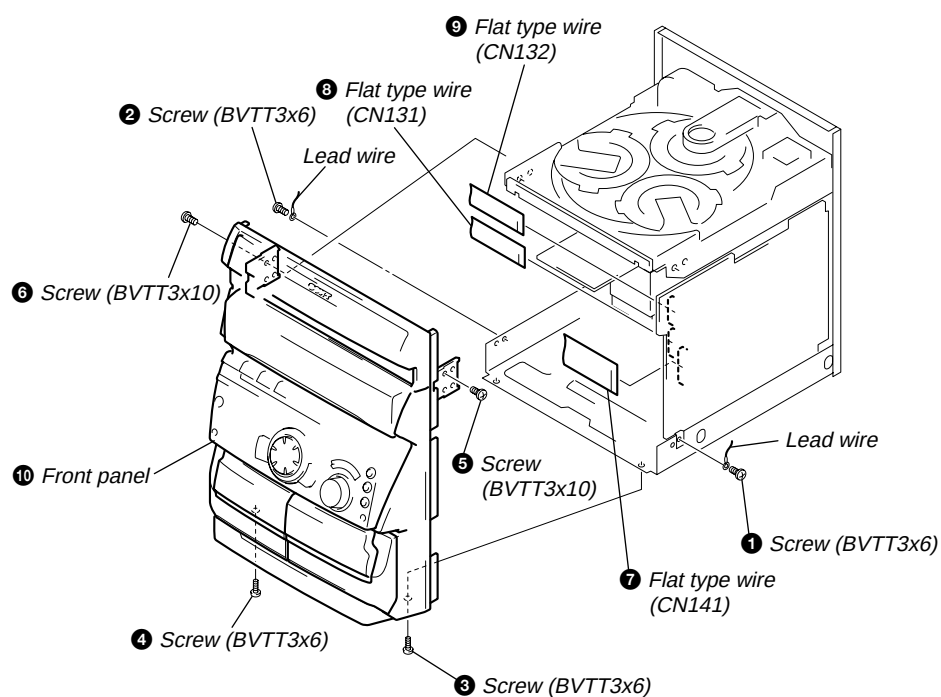
SECTION 3 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

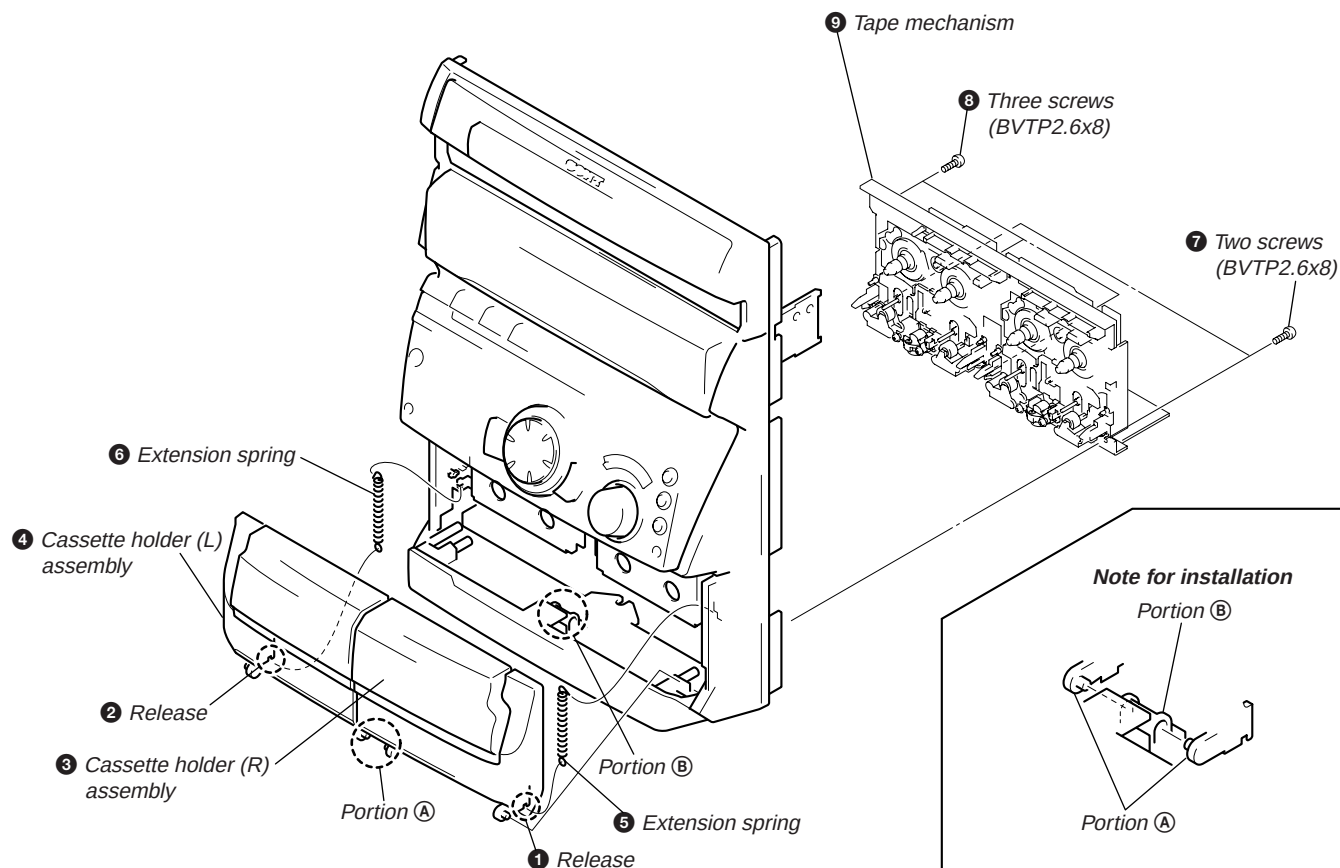
3-1. LOADING PANEL



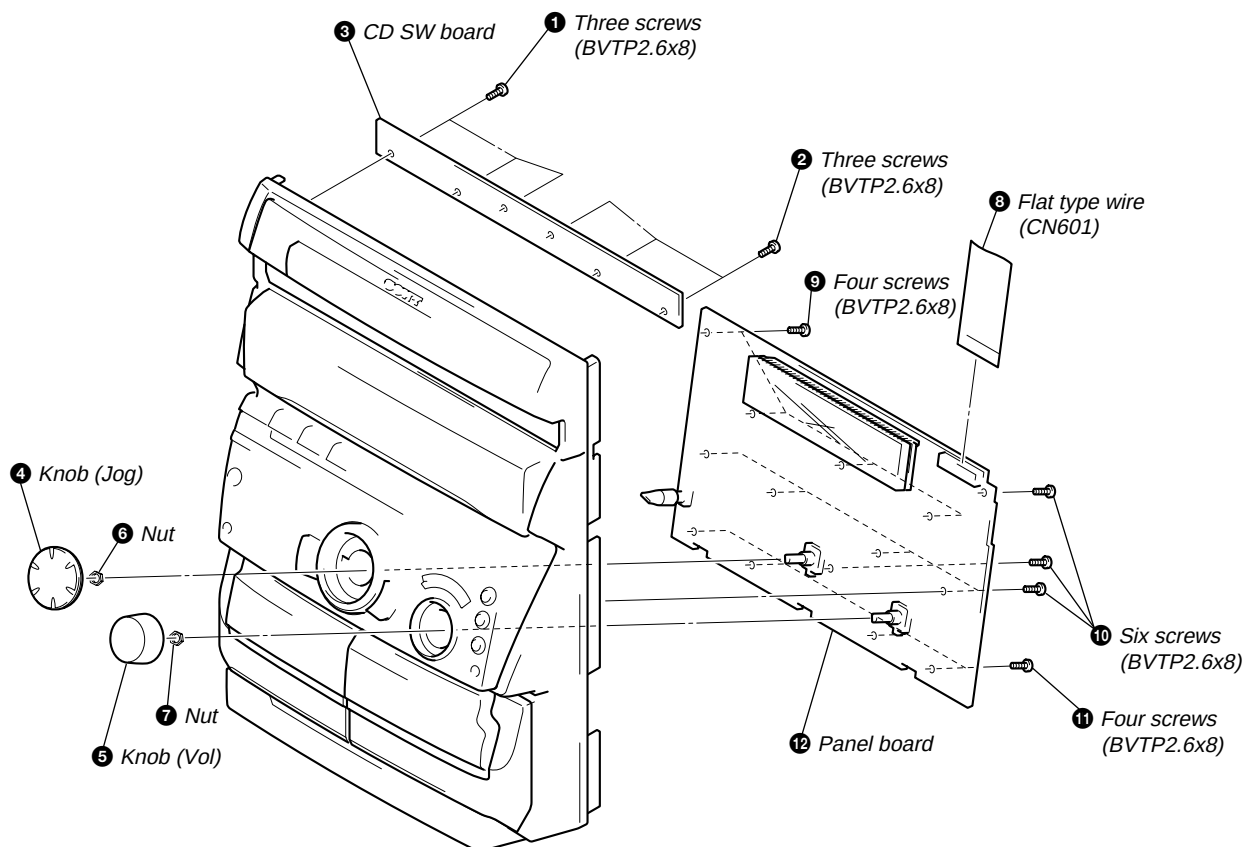
3-2. FRONT PANEL



3-3. CASSETTE LID AND TAPE MECHANISM



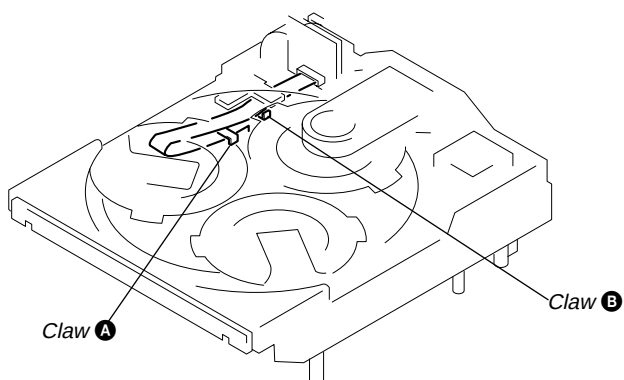
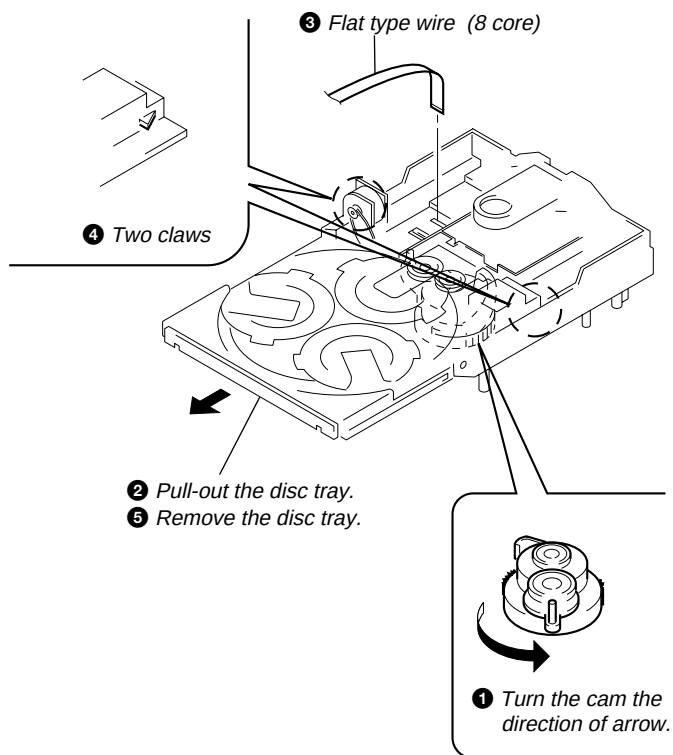
3-4. CD SW BOARD AND PANEL BOARD



3-5. DISC TRAY

(Perform after removing the front panel.)

Note: When installing the Disc tray, pull around the flat type wire to pass through the claw **A** and claw **B**, as shown in the figure.



SECTION 4

SERVICE MODE

MC Cold Reset

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons **■**, **ENTER/NEXT**, and **I/⏻** simultaneously.
2. "COLD RESET" is displayed on the fluorescent display tube and reset is executed.

CD Delivery Mode

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press **I/⏻** button to turn the set ON.
2. Press **LOOP** button and **I/⏻** button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons **■**, **ENTER/NEXT**, and **DISC 1** simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

Sled Servo Mode

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Press **I/⏻** button to turn the set ON.
2. Press three buttons **■**, **ENTER/NEXT**, and **⏮** simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, When the **◀◀ AMS ▶▶** knob is rotated in the clockwise direction, the optical pick-up moves outside. When rotated counterclockwise, it moves inside.
5. To exit from this mode, perform as follows:
 - 1) Move the optical pick-up to the most inside track.
 - 2) Execute MC cold reset. (Press the three buttons **■**, **ENTER/NEXT**, and **I/⏻** button simultaneously.)

Note:

- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of AM Tuner Step between 9kHz and 10kHz

- A step of AM channels can be changed over between 9kHz and 10kHz.

Procedure:

1. Press **I/⏻** button to turn the set ON.
2. Select the function "TUNER", and press **TUNER/BAND** button to select the BAND "AM".
3. Press **I/⏻** button to turn the set OFF.
4. Press **ENTER/NEXT** and **I/⏻** buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9k STEP" or "AM 10k STEP", and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons **■**, **ENTER/NEXT**, and **DISC 2** simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
Press **DISC 2** button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 0 V0 J0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
"J" Value increases like 1, 2, 3 ... if rotating **◀◀ AMS ▶▶** knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
"V" Value increases like 1, 2, 3 ... if rotating **VOLUME** knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

AMS Test Mode

- This mode is used for checking the AMS operations of the tape deck.

JIG

7-819-039-12 Alignment tape, AMS-110A

Procedure:

1. Press the  button to turn the unit ON.
2. Set the tape (AMS-110A).
3. Press the three buttons , **ENTER/NEXT**, and **DISC 3** button simultaneously.
4. "TEST MODE" is displayed on the fluorescent display tube.
5. Press the **FUNCTION** button and switch the function to the deck with the tape (AMS-110A).
6. Press the **CD SYNC** button. "AMS CHECK" is displayed on the fluorescent display tube and the tape is rewound.
7. AMS starts in the normal direction. If the AMS count is 2 at shut down, proceed to step 8.
"NG" is displayed at other times, and the deck stops.
8. AMS starts in the opposite direction. If the AMS count is 2 at shut down again, "OK" is displayed.
"NG" is displayed at other times.

Note: The  button of CD section will become effective and the aging of CD section will stop sometime, if the buttons described in step 3 are not pressed simultaneously. In that case, press  button and operate the CD section.

Aging Mode

During the aging mode, both the CD player and tape deck are executed together.

• If an error occurs:

Aging stops, and the error state is displayed on the fluorescent display tube.

• If no error occurs:

Aging is repeated.

Procedure:

1. Press the  button to turn the unit ON.
2. Load 10 minute tapes with unbent rec-proof tabs in decks A and B.
3. Set CD on the DISC 1 table.
4. Set the CD mode REPEAT to OFF and PLAY MODE to ALL DISCS.
(Press the **PLAY MODE/DOLBY NR** and **REPEAT/STEREO/MONO** buttons to set these modes.)
5. Press the **FUNCTION** button to switch the function to "CD".
6. Press the three buttons , **ENTER/NEXT**, and **DISC SKIP/EX-CHANGE** button simultaneously.
7. Aging starts.
8. To end aging, press the  button to turn the unit OFF.

Aging Sequence:

Aging is performed in the following sequence.

• Tape Deck

1. The tape in deck A is rewound. "TAPE A AG-1" is displayed.
2. The FWD side of deck A is played for two minutes.
"TAPE A AG-2" is displayed.
3. The tape in deck A is fast forwarded. "TAPE A AG-3" is displayed. Fast forward is carried out for 20 seconds or to the tape end.
4. The RVS side of deck A is played for two minutes.
"TAPE A AG-4" is displayed.
5. The tape in deck A is rewound. "TAPE A AG-5" is displayed.
6. The FWD side of deck B is played for two minutes.
"TAPE B AG-2" is displayed.
7. The tape in deck B is fast forwarded. "TAPE B AG-3" is displayed. Fast forward is carried out for 20 seconds or to the tape end.
8. The RVS side of deck B is played for two minutes.
"TAPE B AG-4" is displayed.
9. The tape in deck A is rewound. "TAPE A AG-5" is displayed.
10. Repeated from step 2.

• CD

1. The tray rotates.
2. DISC 1 is chucked.
3. The TOC is read.
4. The first track is played for 2 seconds.
5. The last track is played for 2 seconds.
6. Repeated from step 1.

- Display when ended abnormally

When the tape deck is abnormal:

The state when ended abnormally is displayed.
The contents of display are the same as that during aging.

When the CD player is abnormal:

A message indicating that errors such as “CD MEC ERR” have occurred.
Check the error contents in the following error history display mode.

Error History Display Mode

Mode which enables the history of error occurring in the CD player to be checked.
Execute this mode after ending the aging mode.

Procedure:

1. Press the  button to turn the unit ON.
2. Press the three buttons , **ENTER/NEXT**, and **CD SYNC** simultaneously.
3. A message such as “EMC@@@EDC***” is displayed.
@@ : Number of mechanical errors (Up to three past errors)
*** : Number of errors (NO DISC ERROR) which occurs after chucking (Up to three past errors)
4. When checking the history of mechanical errors, press the **PLAY MODE/DOLBY NR** buttons. When checking errors after chucking, press the **REPEAT/STERO/MONO** buttons to switch the display.
5. Press the  button to end and turn the unit OFF.
6. To erase the error history, perform COLD reset.
(Press the three buttons , **ENTER/NEXT**, and **DISC 1** simultaneously.)

- Viewing the mechanical error history display
(Switch the history by pressing the **PLAY MODE/DOLBY NR** button.)

Display

E@@M***#\$*

@@ : Error number. 00 is the newest.

- * : Invalid
- # : Loading
 - D : Stop that is due to a problem of other than mechanism during CLOSE mode.
 - E : Stop that is due to a problem of other than mechanism during OPEN mode.
 - C : Stop that is due to a problem of other than mechanism during CHUCK UP mode.
 - F : Stop that is due to a problem of other than mechanism during EX OPEN mode.
- \$: Emerging
 - 1 : Stop during CLOSE mode.
 - 2 : Stop during CHUCK DOWN mode.
 - 3 : Time limit of EX OPEN mode.
 - 5 : Time limit of EX CLOSE mode.

- Viewing the NO DISC ERROR history display
(Switch the history by pressing the **REPEAT/STERO/MONO** buttons.)

Display

E@@D##\$\$%*

@@ : Error number. 00 is the newest

- ## : Error contents
 - 01 : Focus error
 - 02 : GFS error
 - 03 : Setup error
- \$\$: Retries
 - 00 : NO DISC is determined without attempting chucking retry
 - 02 : NO DISC is determined after chucking retry.
- % : State when determined as NO DISC
 - 1 : When stopped
 - 2 : At setup
 - 3 : At TOC READ
 - 4 : When accessing
 - 5 : When playing
 - 6 : When pausing
 - 7 : When manual searching (during play)
 - 8 : When manual searching (during pausing)
- * : Invalid

SECTION 5 MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775V

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

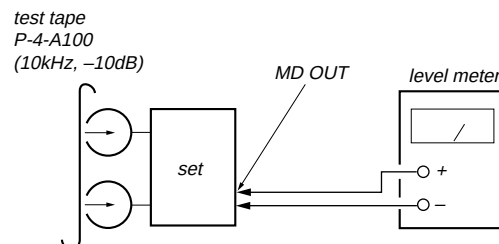
Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

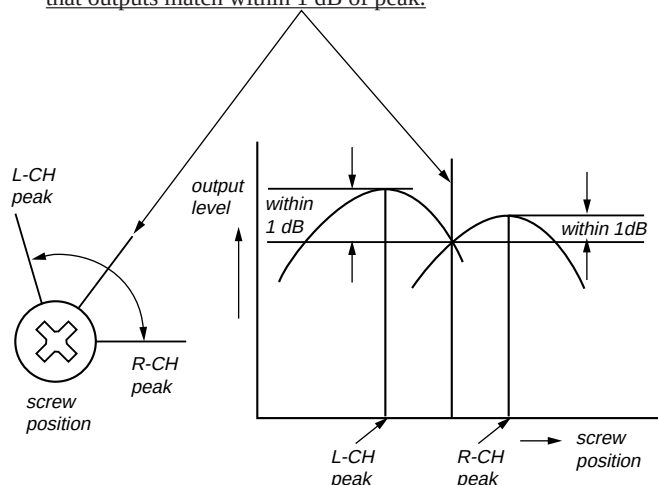
Note: Perform this adjustments for both decks.

Procedure:

1. Mode : Playback

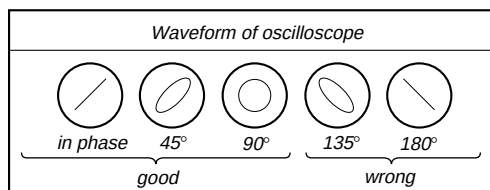
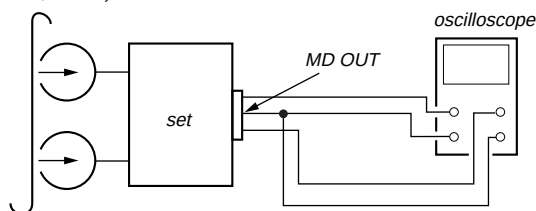


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



3. Mode: Playback

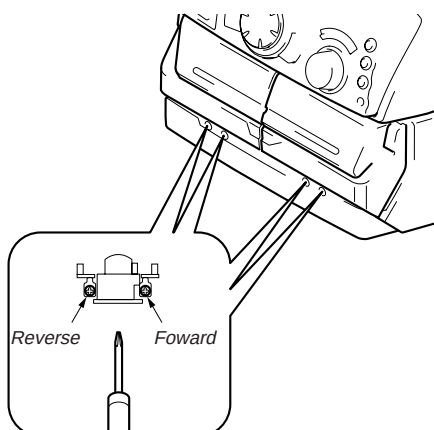
test tape
P-4-A100
(10kHz, -10dB)



- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A)

Record/Playback/Erase Head (Deck B)



Tape Speed Adjustment (Deck A)

Note: Set the test mode using the following method and begin tape speed adjustment.

In the test mode, the speed will switch to double speed or normal speed each time the **HI-DUB** button is pressed.

Procedure:

With the power turned ON, press the **STOP** button, **ENTER/NEXT** button, and **DISC 3** button simultaneously.

(The "CD TABLE INDICATOR" on the fluorescent display tube will blink while in the test mode.)

To exit the test mode, press the **I/O** button.

- Insert the WS-48B into deck B.
- Press the **STOP** button of deck B.
- Press the **HI-DUB** button and play the tape at double speed.
- Adjust RV1001 of the LEAF SW board so that the reading of the frequency counter becomes 6000 ± 180 Hz.
- Press the **HI-DUB** button and play the tape at normal speed.
- Adjust RV1002 of the LEAF SW board so that the reading of the frequency counter becomes 3000 ± 90 Hz.

Adjustment Location: LEAF SW board

Sample Value of Wow and flutter

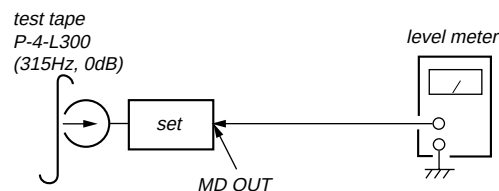
W.RMS (JIS) less than 0.3%

(test tape: WS-48B)

Playback Level Adjustment (Deck A, Deck B)

Procedure:

Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH)

so that adjustment within the following adjustment level.

Adjustment level:

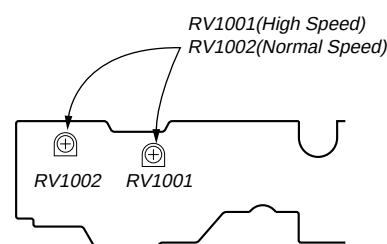
CN301 playback level: 301.5 to 338.3 mV (-8.2 to -7.2 dB)

level difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board

Adjustment Location

[LEAF SW BOARD]



Record Bias Adjustment (Deck B)

Procedure:

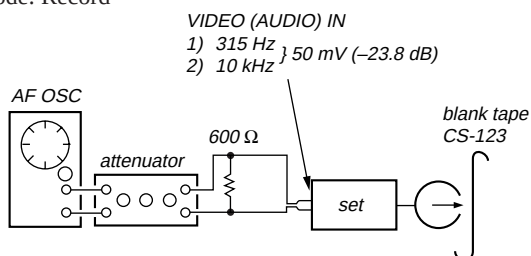
INTRODUCTION

When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the “REC memory mode” which rewinds only the recorded portion and playback is set.

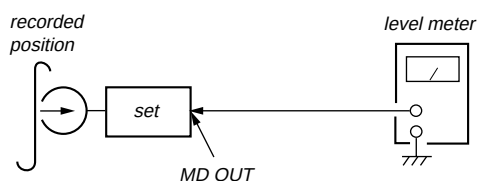
This “REC memory mode” is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(After recording, press the  button without stopping will return to the position where recording was started.)

1. Press **FUNCTION** button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B, press the **REC** button, and then press the  button to start recording.
3. Mode: Record



4. Mode: Playback

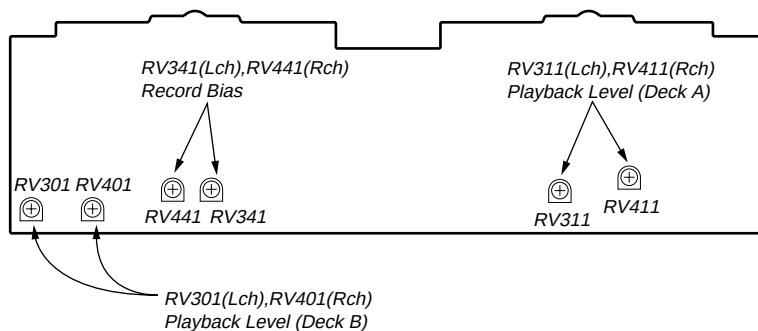


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

Adjustment level: The playback output of 10 kHz level difference against 315 Hz reference should be ± 1.0 dB.

Adjustment Location: AUDIO board

Adjustment Location:
[AUDIO BOARD] (Conductor Side)



Record Level Adjustment (Deck B)

Procedure:

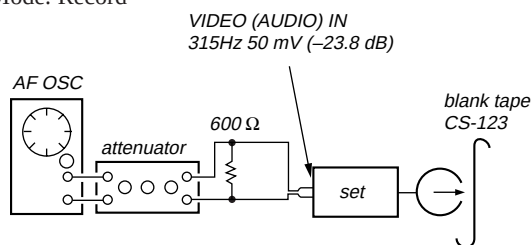
INTRODUCTION

When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the “REC memory mode” which rewinds only the recorded portion and playback is set.

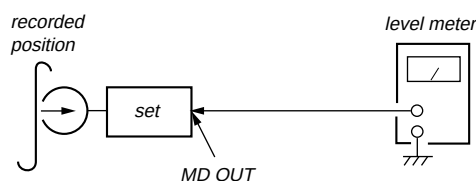
This “REC memory mode” is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(After recording, press the  button without stopping will return to the position where recording was started.)

1. Press **FUNCTION** button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B, press the **REC** button, and then press the  button to start recording.
3. Mode: Record



4. Mode: Playback

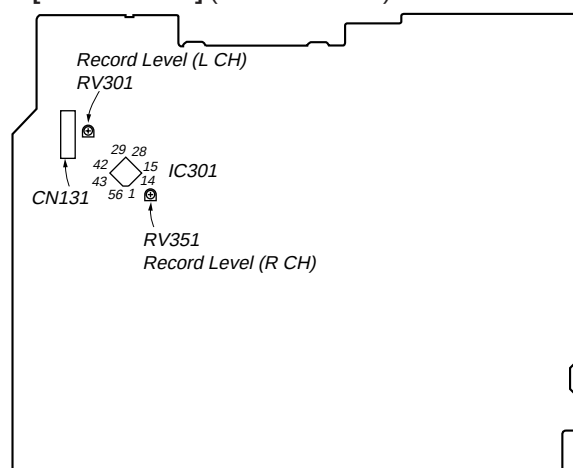


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

Adjustment level:
CN403 playback level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

Adjustment Location: MAIN board

[MAIN BOARD] (Conductor Side)

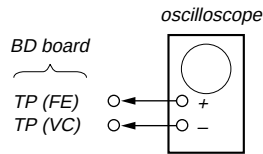


SECTION 7
DIAGRAMS

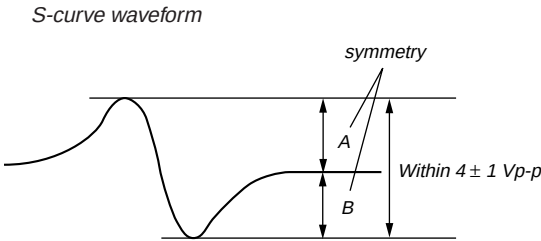
CD SECTION

- Note:**
1. CD Block is basically constructed to operate without adjustment. Therefore, check each item in order given.
 2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
 3. Use an oscilloscope with more than 10MΩ impedance.
 4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check

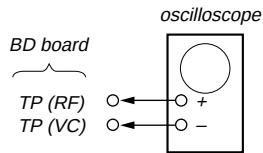


- Procedure :**
1. Connect the oscilloscope to test points TP (FE) and TP (VC).
 2. Connect TP (FEI) and GND, and TP (AGCCON) and GND of the BD board with lead wires.
 3. Press the button to turn the set ON.
 4. With the disc (YEDS-18) loaded, press the button and perform focus search. (Focus search will be performed in the same way even while the disc table is pushed in and out.)
 5. Check the symmetry and peak to peak level of the oscilloscope waveform (S curve) at this time.



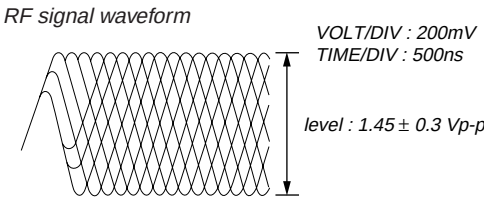
6. After check, remove the lead wire connected in step 2.
- Note:**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

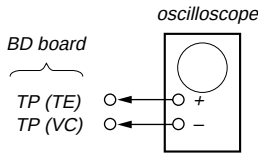


- Procedure :**
1. Connect oscilloscope to test point TP (RF) and TP (VC) on BD board.
 2. Connect TP (AGCCON) and GND of the BD board with lead wires.
 3. Press the button to turn the set ON.
 4. Put disc (YEDS-18) in and playback 5track.
 5. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.
 6. After check, remove the lead wire connected in step 2.

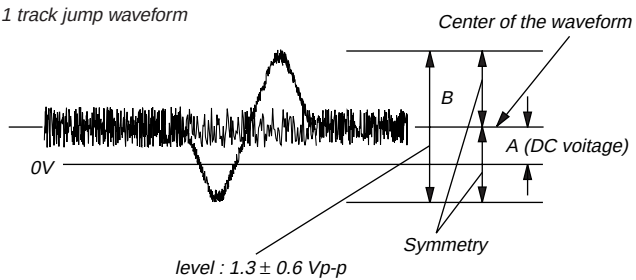
Note: Clear RF signal waveform means that the shape “◊” can be clearly distinguished at the center of the waveform.



E-F Balance (1 Track Jump) check

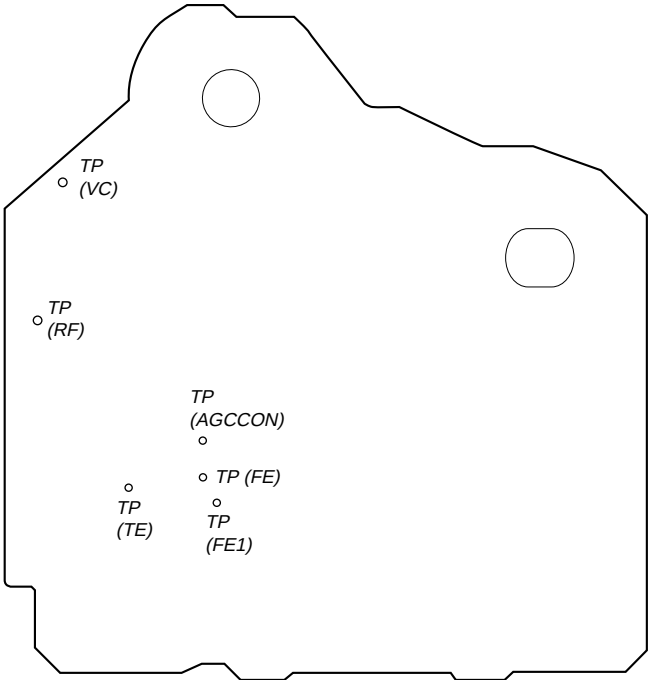


- Procedure:**
1. Connect oscilloscope to test point TP (TE) on BD board.
 2. Press the button to turn the unit ON.
 3. Put disc (YEDS-18) in to play the number five track.
 4. Press the button.
 5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform. Confirm the following:
- A/B x 100 = less then ± 22 (%)
 - B = 1.3 ± 0.6 Vp-p

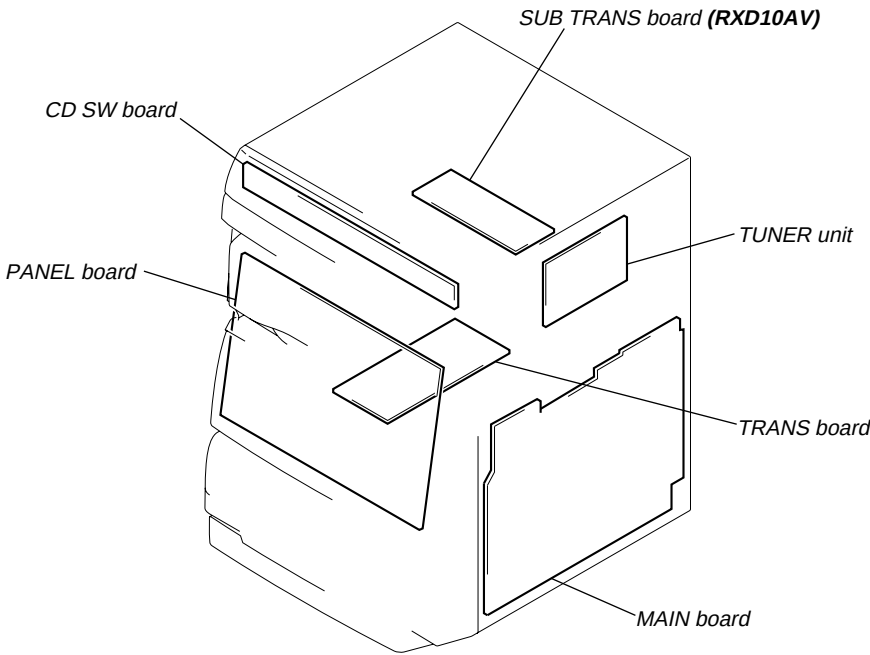


Adjustment Location :

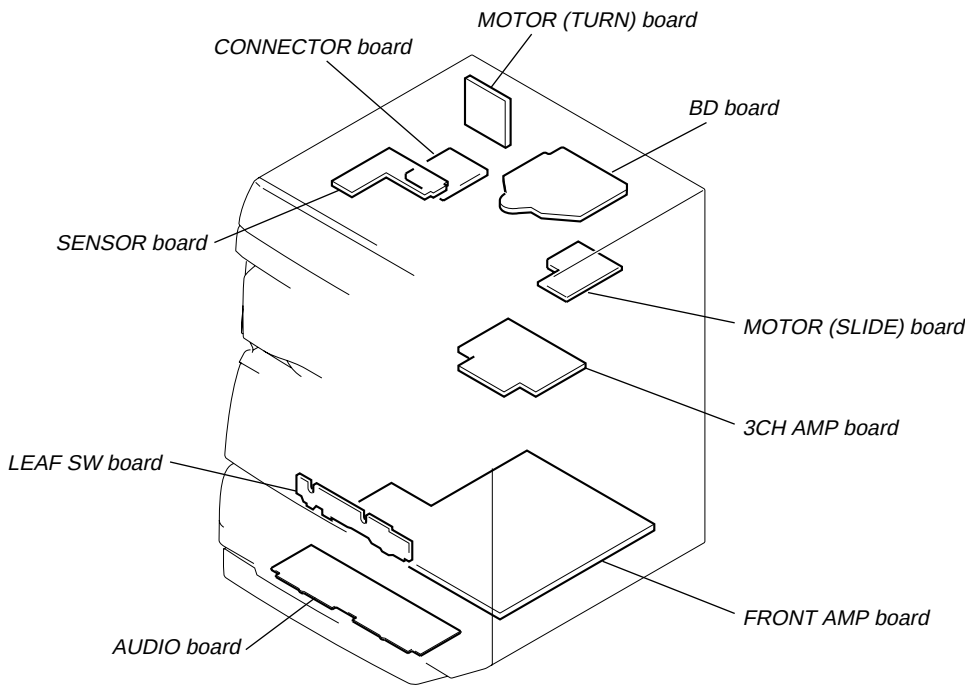
[BD BOARD] — SIDE A —



7-1. CIRCUIT BOARDS LOCATION

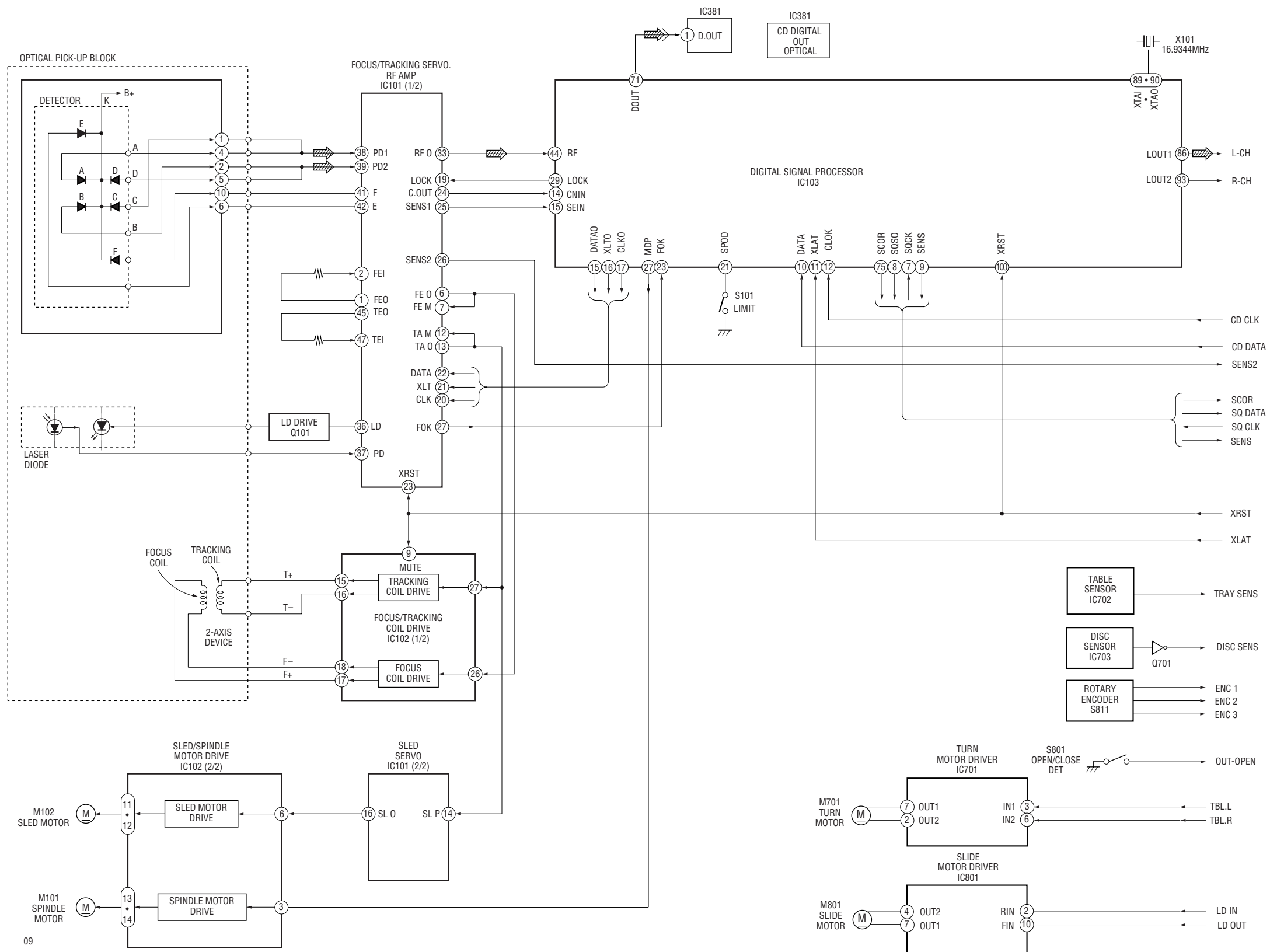


TUNER unit is supplied as the assembled block.

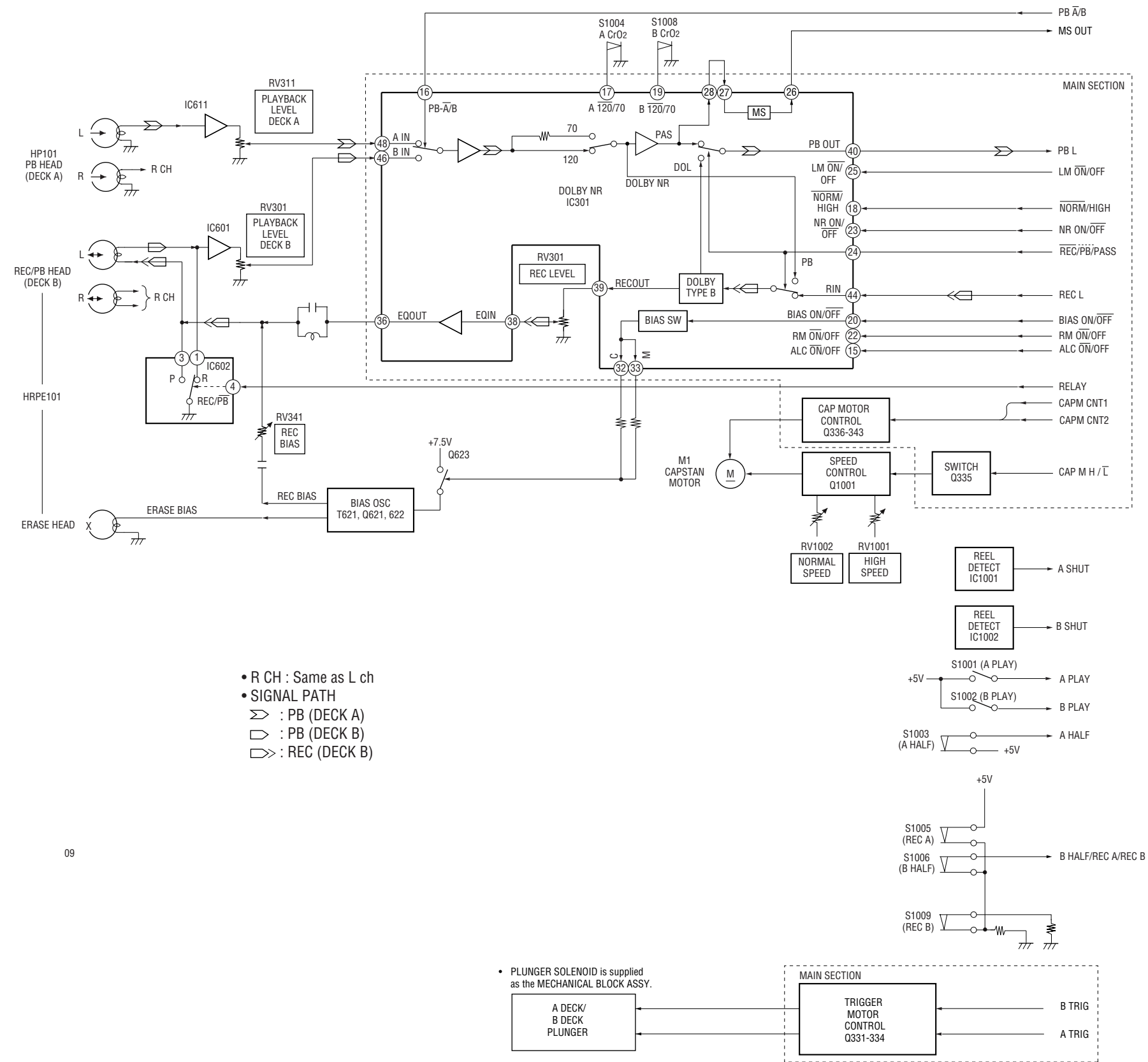


7-2. BLOCK DIAGRAMS

- CD SECTION -

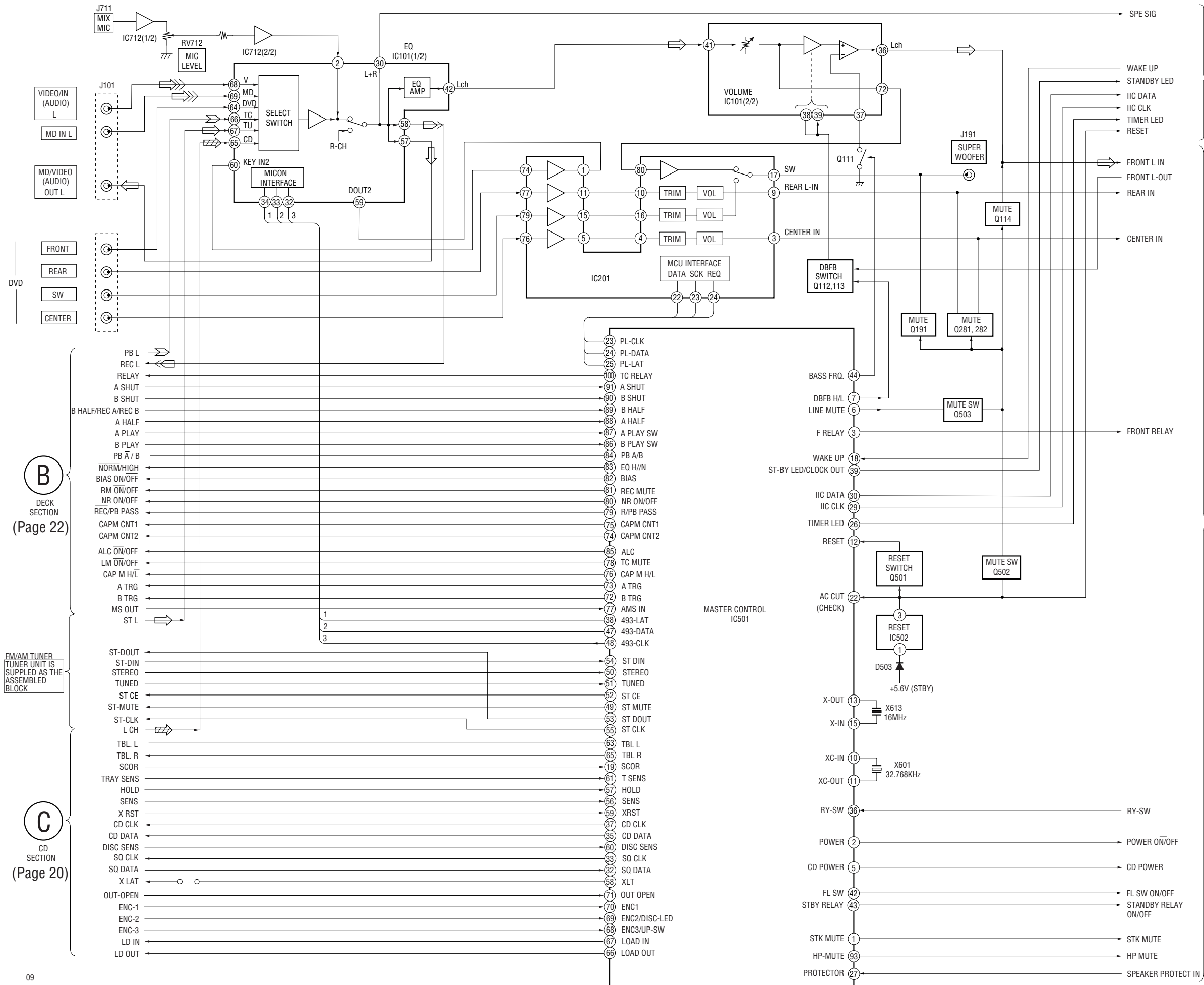


- DECK SECTION -



B
MAIN
SECTION
(Page 23)

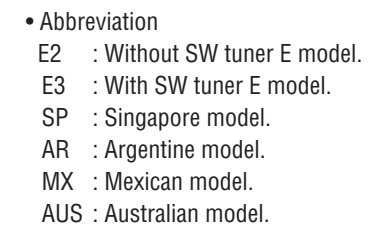
- MAIN SECTION -



E
DISPLAY
SECTION
(Page 27)

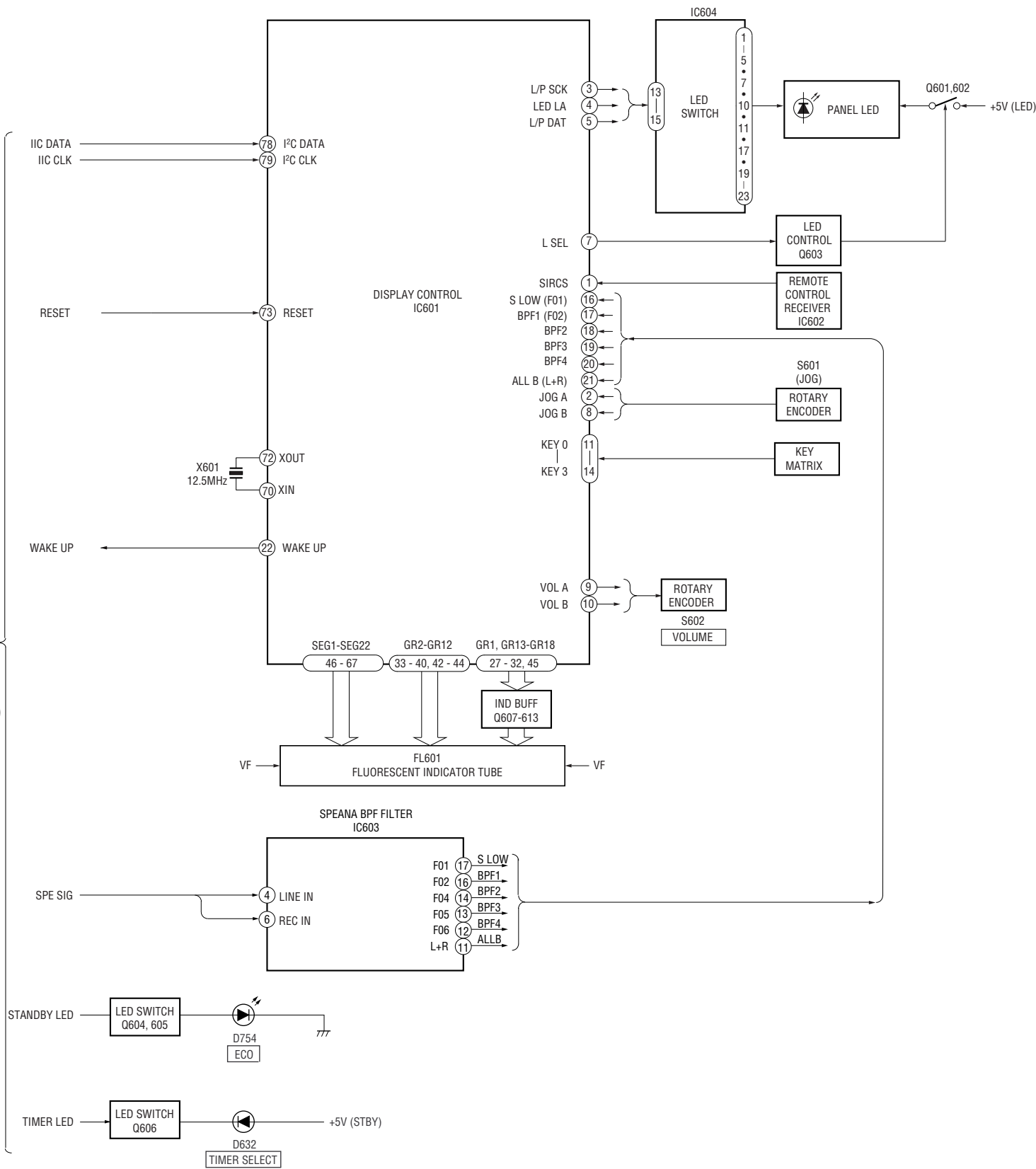
D
POWER
SECTION
(Page 25)

- R CH: Same as L ch
- SIGNAL PATH
 - ⇒ : FM
 - ⇒ : CD
 - ⇒ : PB
 - ⇒ : REC
 - ⇒ : VIDEO/MD



– DISPLAY SECTION –

E
MAIN
SECTION
(Page 24)



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- $\triangle$: internal component.
- : panel designation.

Note:
The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

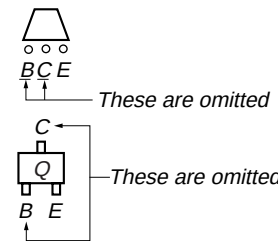
- B+ : B+ Line.
- B- : B- Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - $\Rightarrow$: FM
 - $\Rightarrow$: AM
 - $\Rightarrow$: VIDEO/MD/DVD
 - $\Rightarrow$: PB (DECK A)
 - $\Rightarrow$: PB (DECK B)
 - $\Rightarrow$: REC (DECK B)
 - $\Rightarrow$: CD
 - $\Rightarrow$: digital out
- Abbreviation
 - CND : Canadian model.
 - G : German model.
 - E2 : Without SW tuner E model.
 - E3 : With SW tuner E model.
 - EA : Saudi Arabia model.
 - AUS : Australian model.
 - SP : Singapore model.
 - AR : Argentine model.
 - TH : Thai model.
 - MX : Mexican model.

For printed wiring boards.

Note:

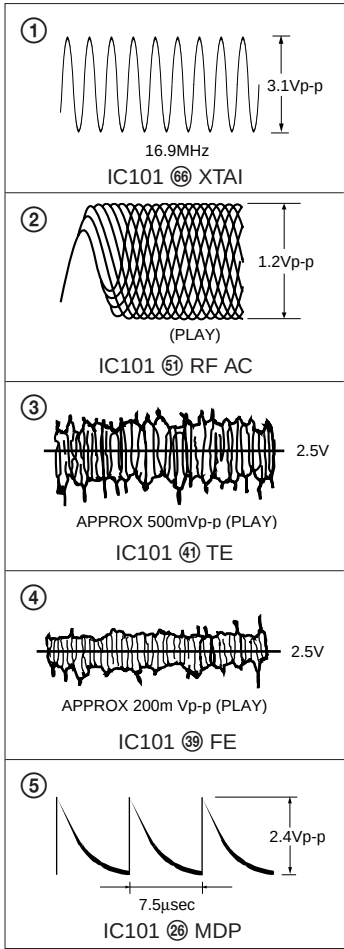
- : parts extracted from the component side.
- : parts mounted on the conductor side.
- $\circ$: Through hole.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Indication of transistor

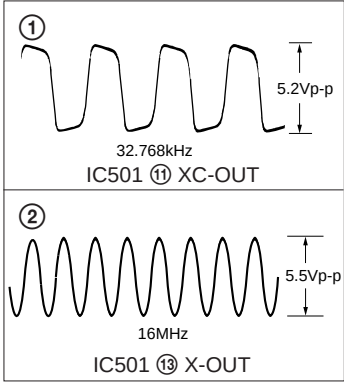


WAVEFORMS

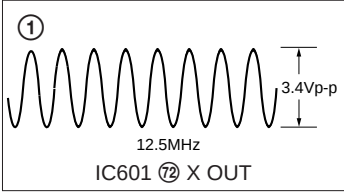
– BD (CD) SECTION –



– MAIN (3/4) SECTION –

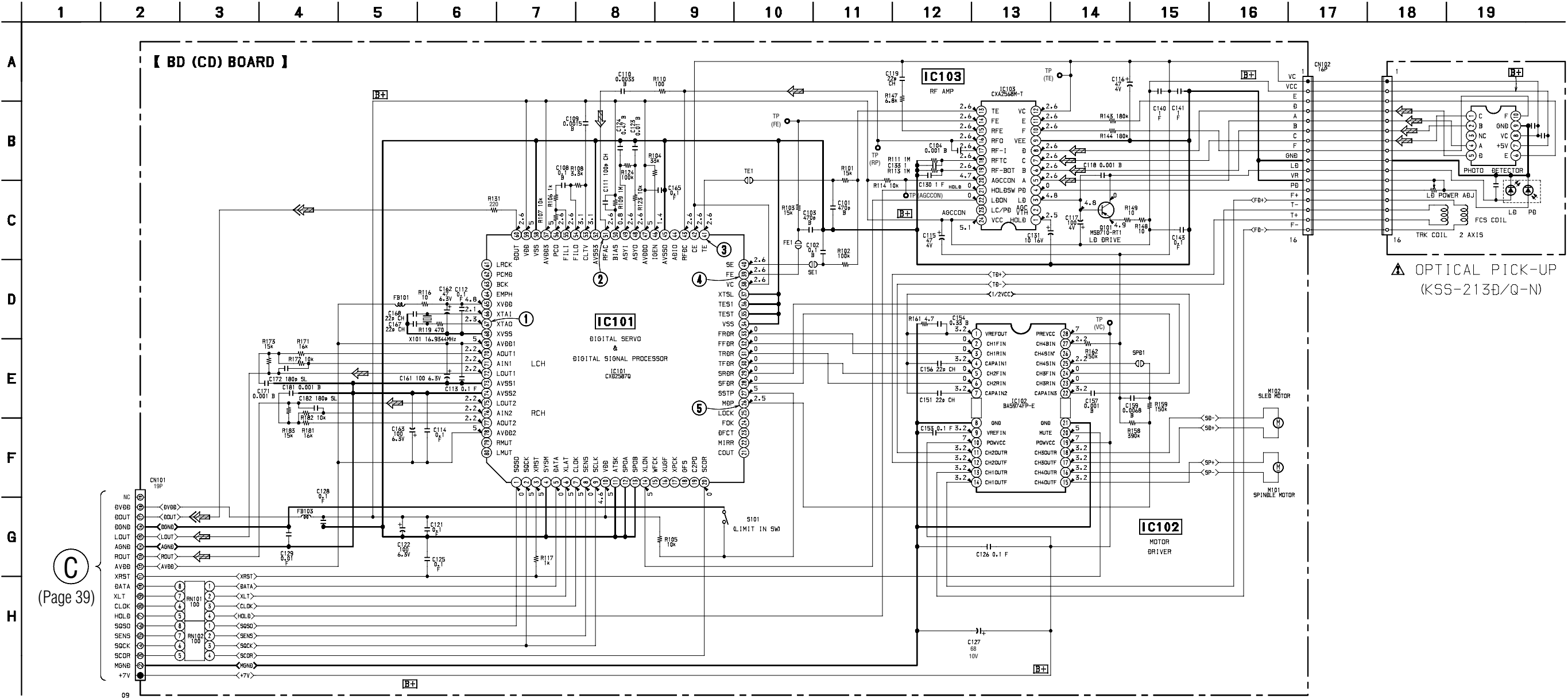


– PANEL (2/2) SECTION –





7-4. SCHEMATIC DIAGRAM – BD (CD) SECTION –
• See page 30 for Waveforms.



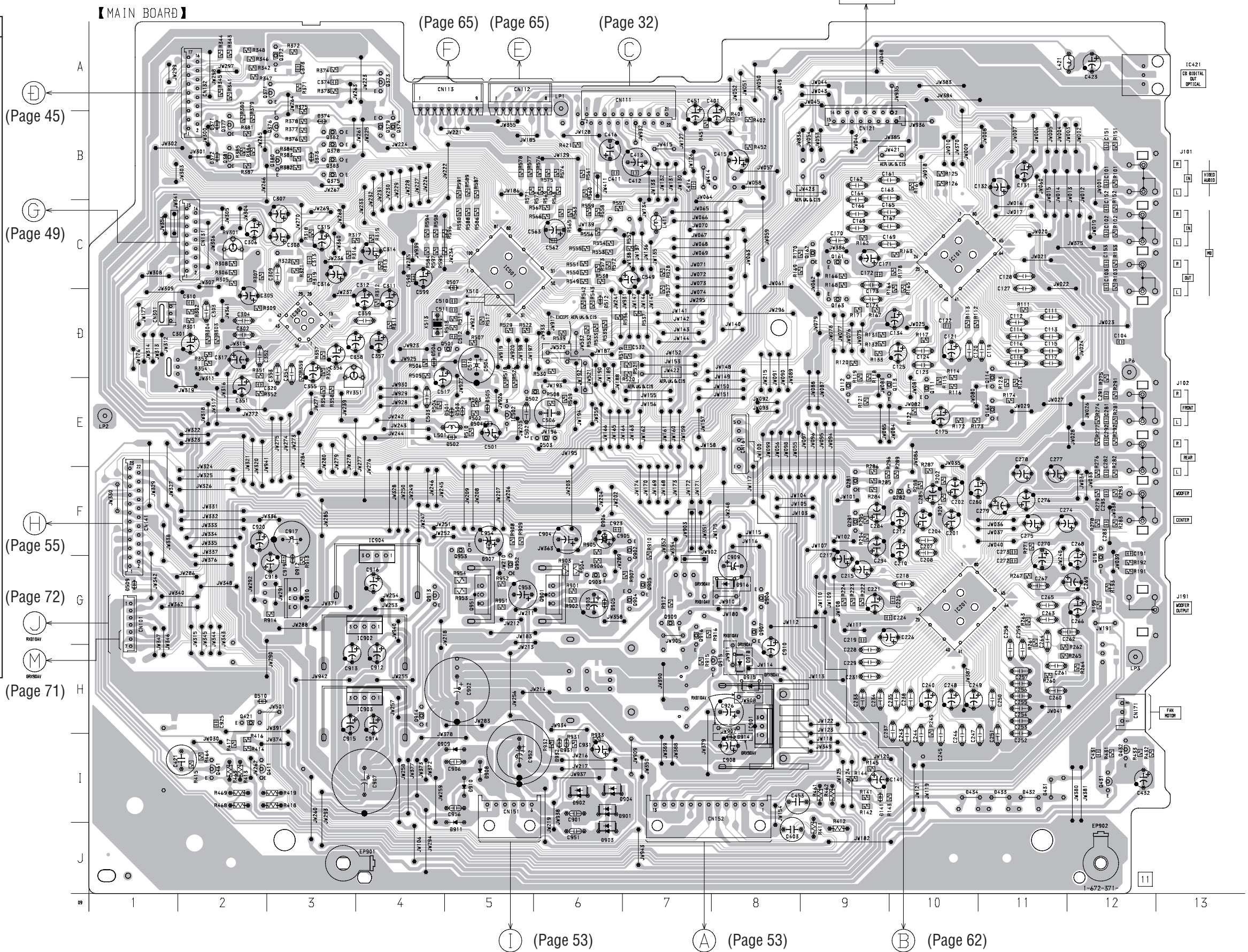
Note:
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

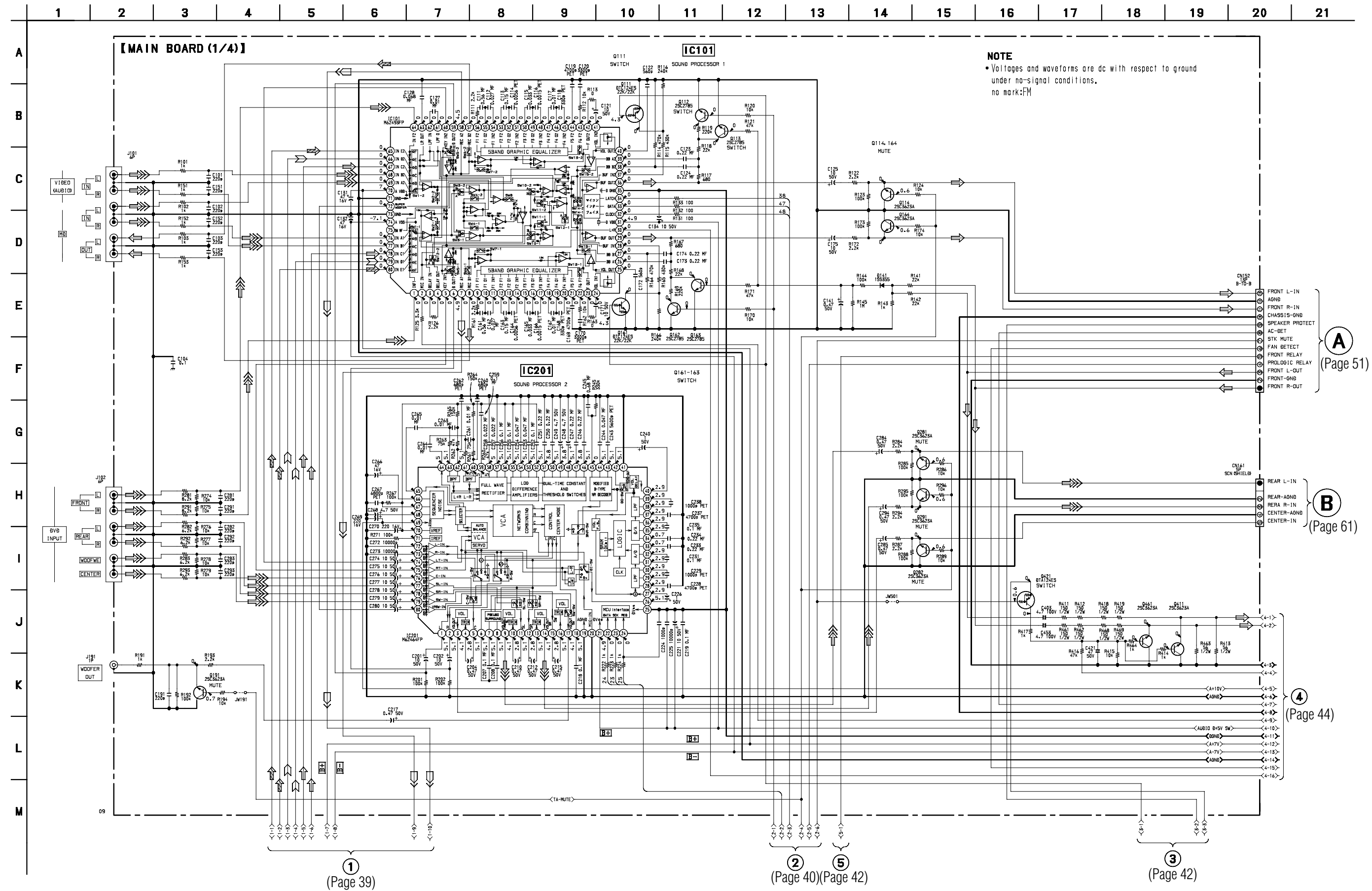
7-5. PRINTED WIRING BOARD – MAIN SECTION –
• See page 18 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D141	I-9	Q111	E-10
D371	B-2	Q112	E-9
D372	B-2	Q113	E-10
D373	B-3	Q114	D-11
D374	B-3	Q161	C-9
D431	I-11	Q162	C-9
D432	I-11	Q163	D-9
D433	I-11	Q164	E-11
D434	I-10	Q191	F-12
D501	E-5	Q281	F-9
D502	E-5	Q282	F-10
D503	E-5	Q291	F-9
D504	E-5	Q371	A-3
D505	E-5	Q372	A-3
D506	D-4	Q373	A-4
D507	C-5	Q374	B-4
D509	G-1	Q375	B-3
D510	H-2	Q376	B-3
D512	D-6	Q377	B-2
D901	I-6	Q378	B-3
D902	I-6	Q379	B-4
D903	J-6	Q380	B-3
D904	I-6	Q381	B-2
D905	G-6	Q382	B-3
D906	F-6	Q383	B-3
D907	F-5	Q411	I-2
D908	I-5	Q421	H-2
D909	I-5	Q431	I-12
D910	I-5	Q432	I-12
D911	I-5	Q461	I-2
D912	G-3	Q501	D-5
D914	I-8	Q502	E-5
D915	H-8	Q503	E-6
D916	G-8	Q901	G-6
D918	H-8	Q902	F-7
D931	I-6	Q903	G-6
D932	I-6	Q904	G-7
		Q905	G-7
IC101	C-10	Q906	G-8
IC201	G-10	Q907	G-8
IC301	D-3	Q909	G-7
IC421	A-13	Q910	G-3
IC501	C-5	Q913	G-4
IC502	E-5	Q914	H-4
IC901	H-8	Q915	H-8
IC902	G-4	Q916	G-7
IC903	H-4	Q951	G-5
IC904	F-4	Q952	G-5
		Q953	F-5



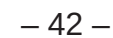
7-6. SCHEMATIC DIAGRAM – MAIN (1/4) SECTION –



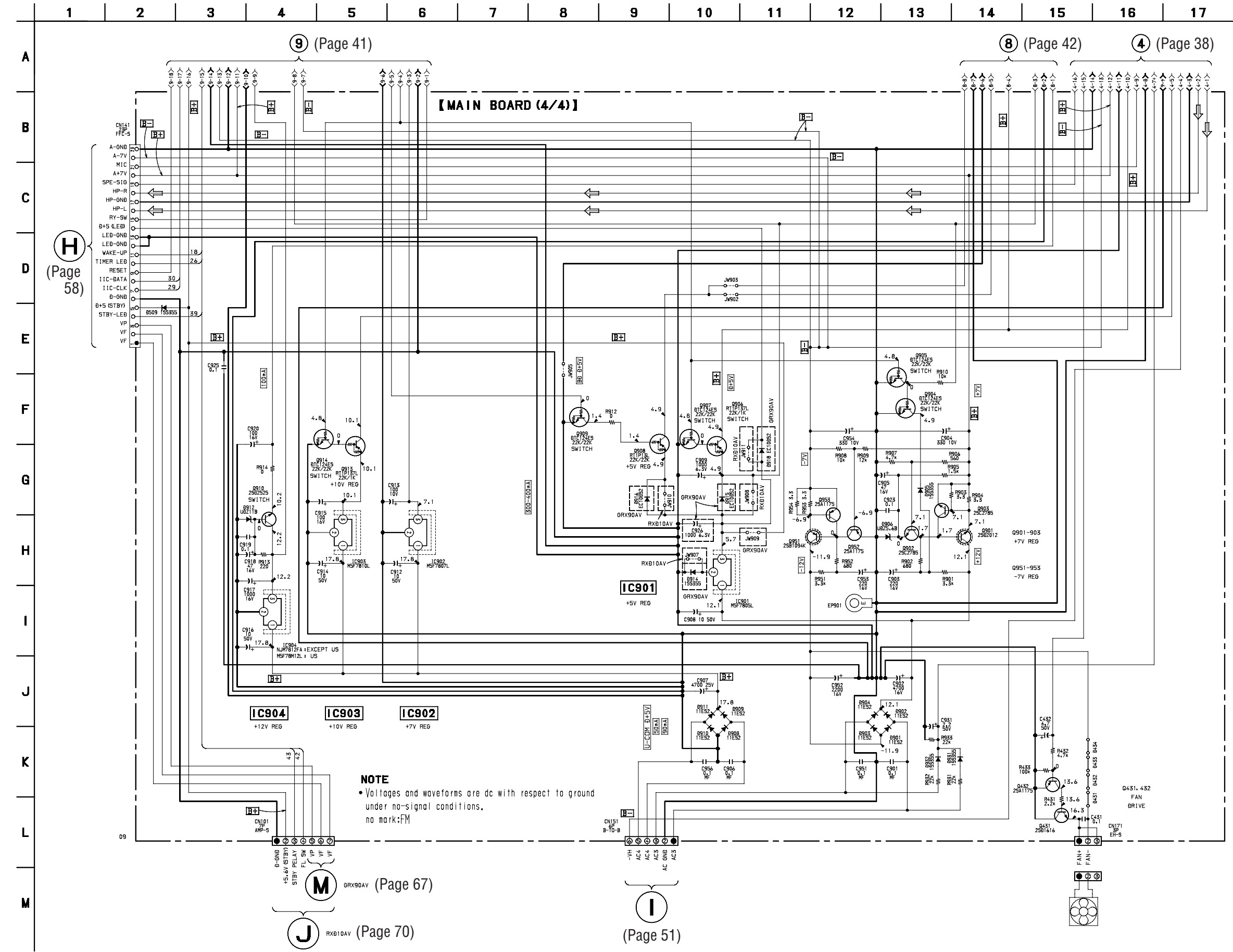


(Page 38)

- NOTE**
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark:FM
():CD PLAY

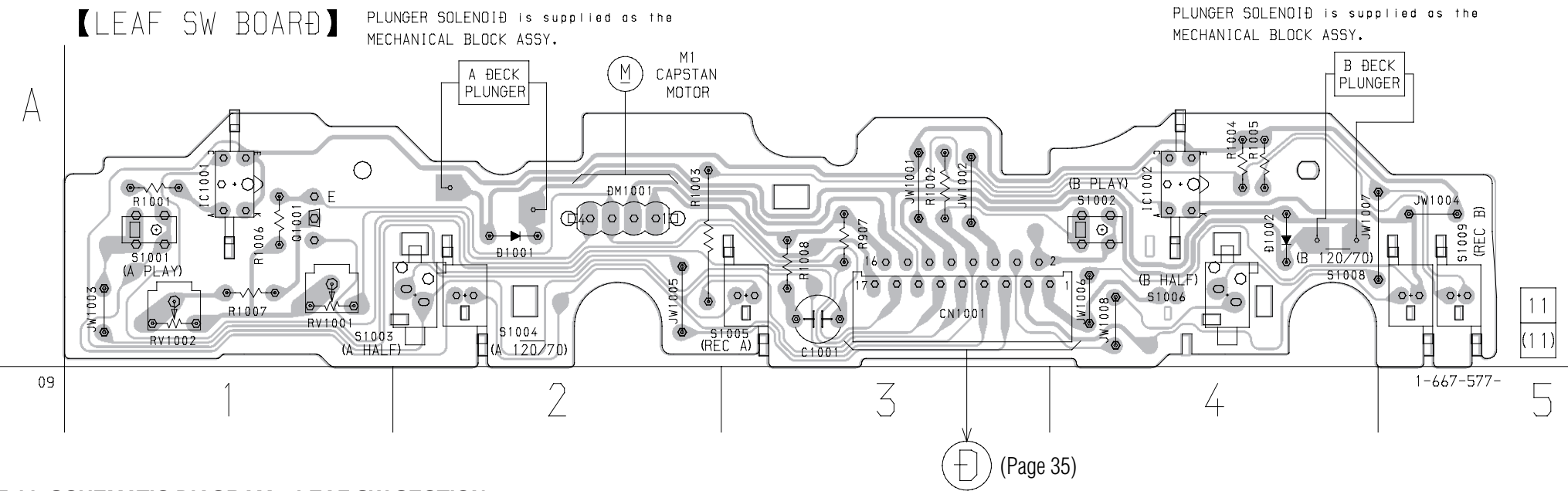


7-9. SCHEMATIC DIAGRAM – MAIN (4/4) SECTION –
• See page 35 for Printed Wiring Board.

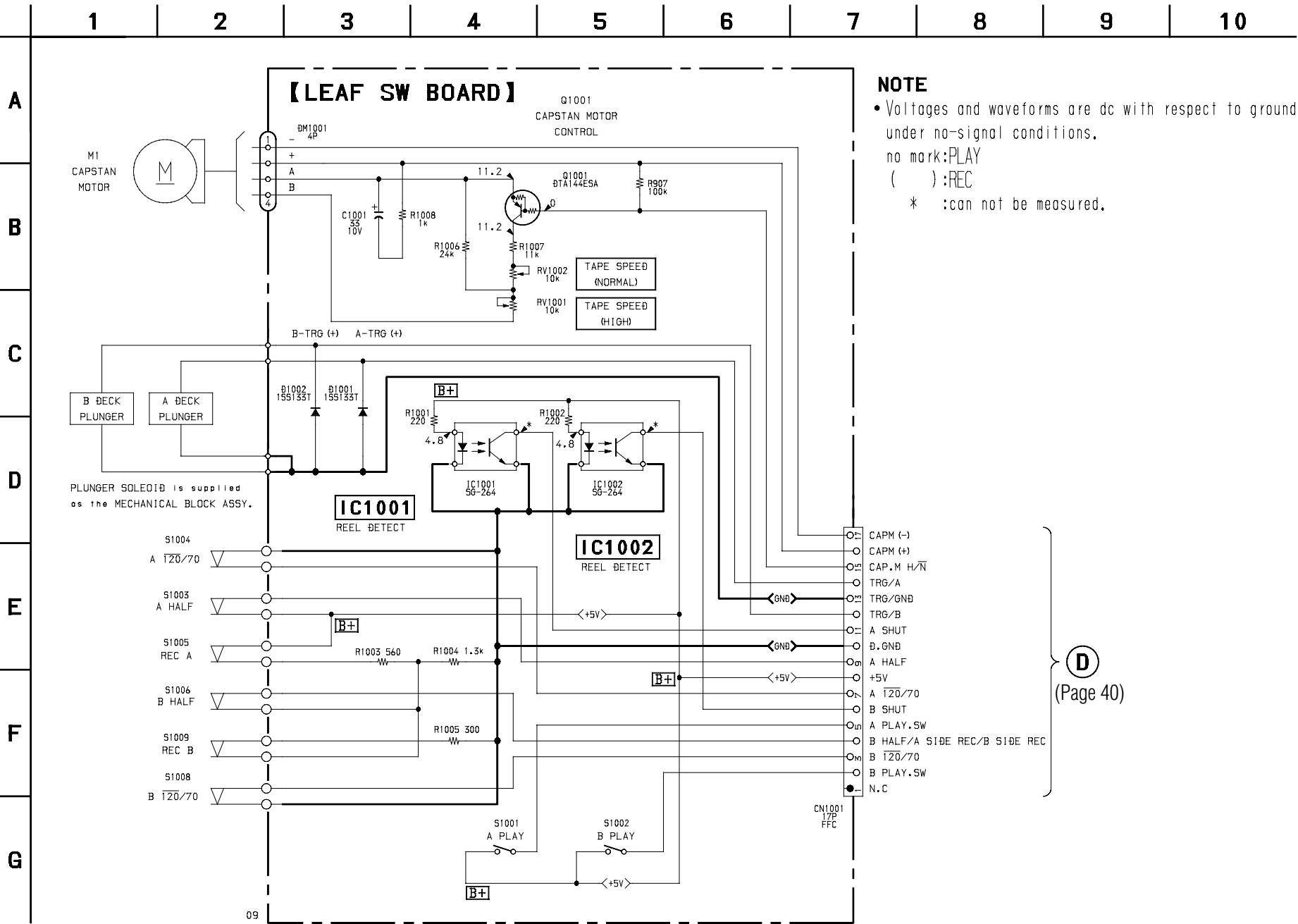


7-10. PRINTED WIRING BOARD – LEAF SW SECTION –

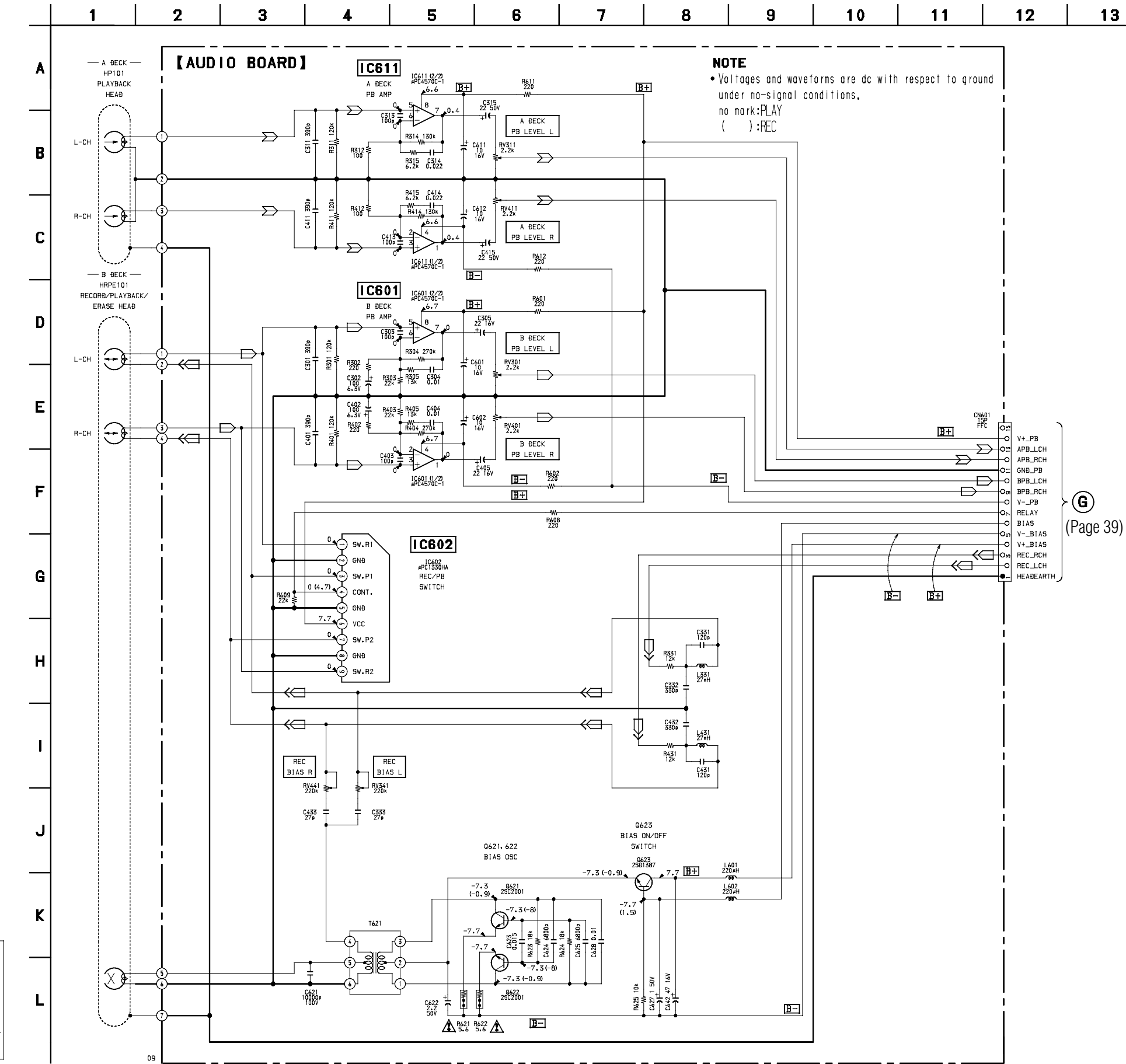
• See page 18 for Circuit Boards Location.



7-11. SCHEMATIC DIAGRAM – LEAF SW SECTION –

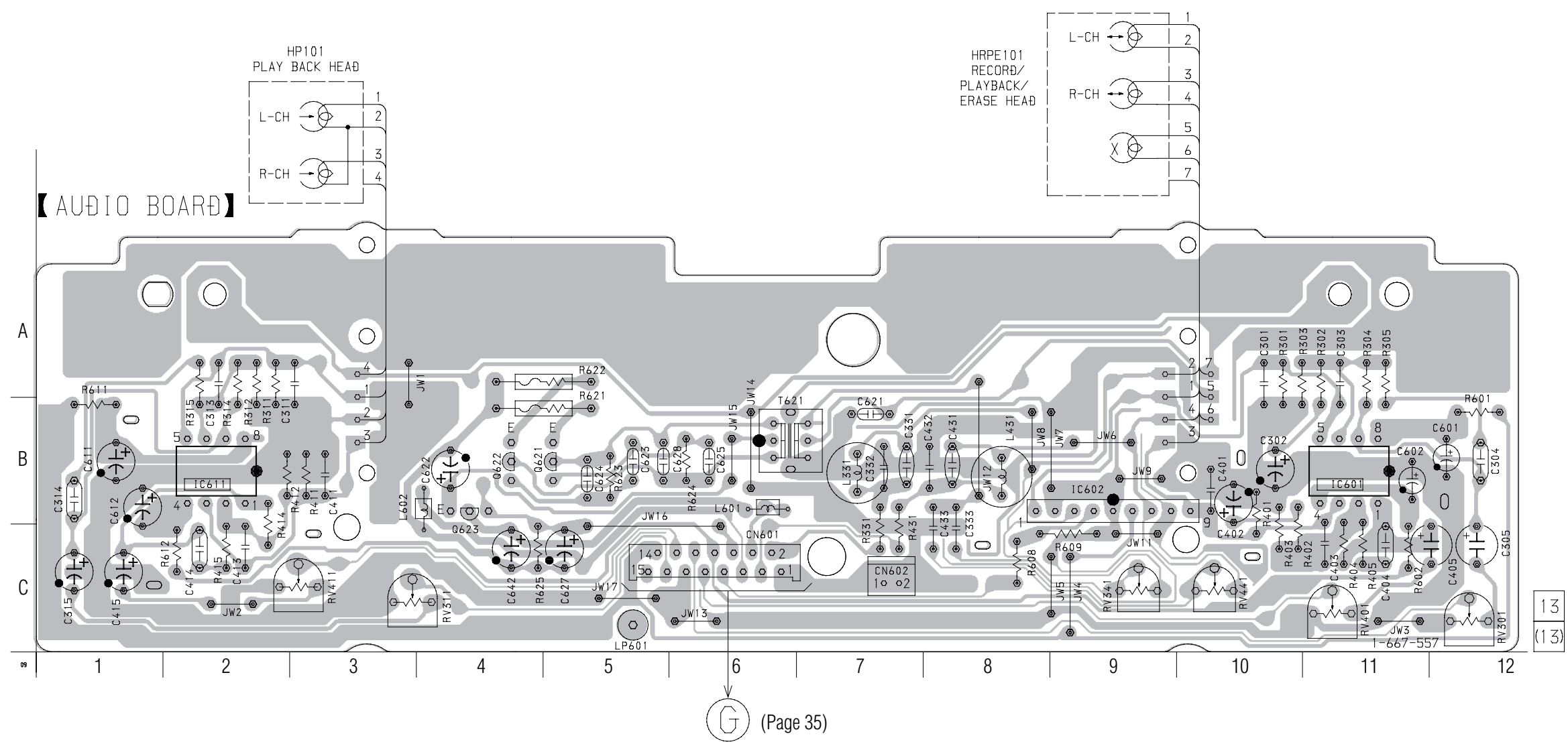


7-12. SCHEMATIC DIAGRAM – DECK SECTION –



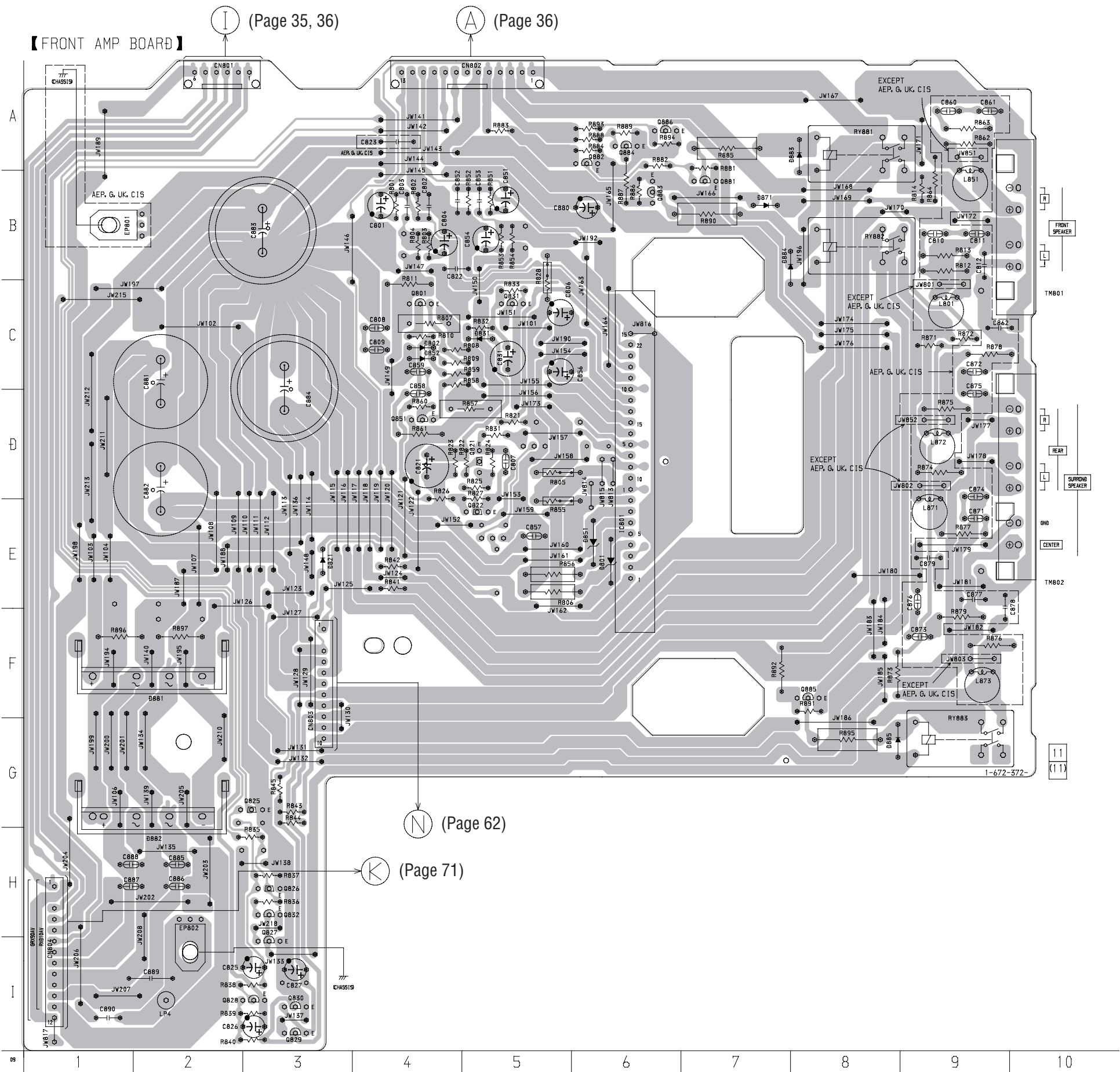
Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.	Note: Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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7-13. PRINTED WIRING BOARD – DECK SECTION –
• See page 18 for Circuit Boards Location.





7-15. PRINTED WIRING BOARD – FRONT PANEL SECTION –
• See page 18 for Circuit Boards Location.



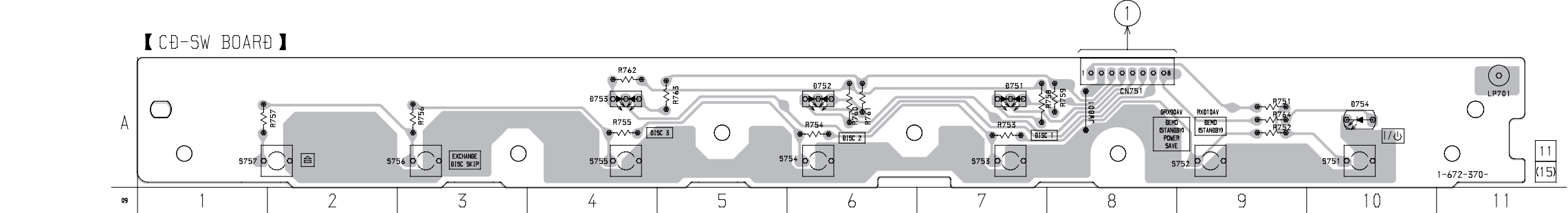
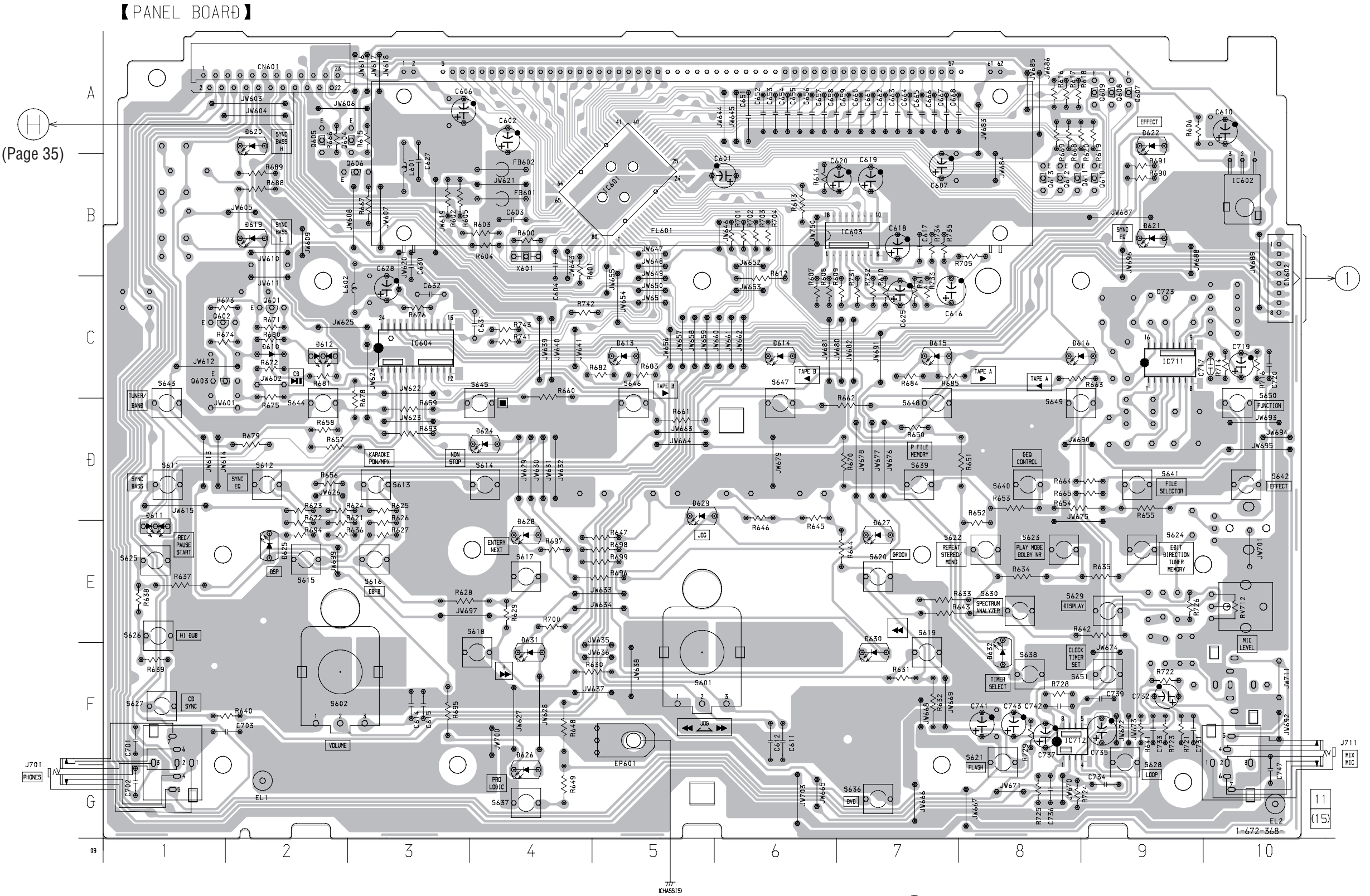
• Semiconductor Location

Ref. No.	Location
D801	E-6
D802	C-4
D821	E-3
D831	C-5
D851	E-6
D852	C-4
D871	B-7
D881	F-2
D882	G-2
D883	A-8
D884	B-8
D885	G-8
IC801	E-6
Q801	C-4
Q821	D-5
Q822	E-5
Q825	G-3
Q826	H-3
Q827	H-3
Q828	I-2
Q829	I-3
Q830	I-3
Q831	C-5
Q851	D-4
Q881	B-7
Q882	A-6
Q883	B-6
Q884	A-6
Q885	F-8
Q886	A-6

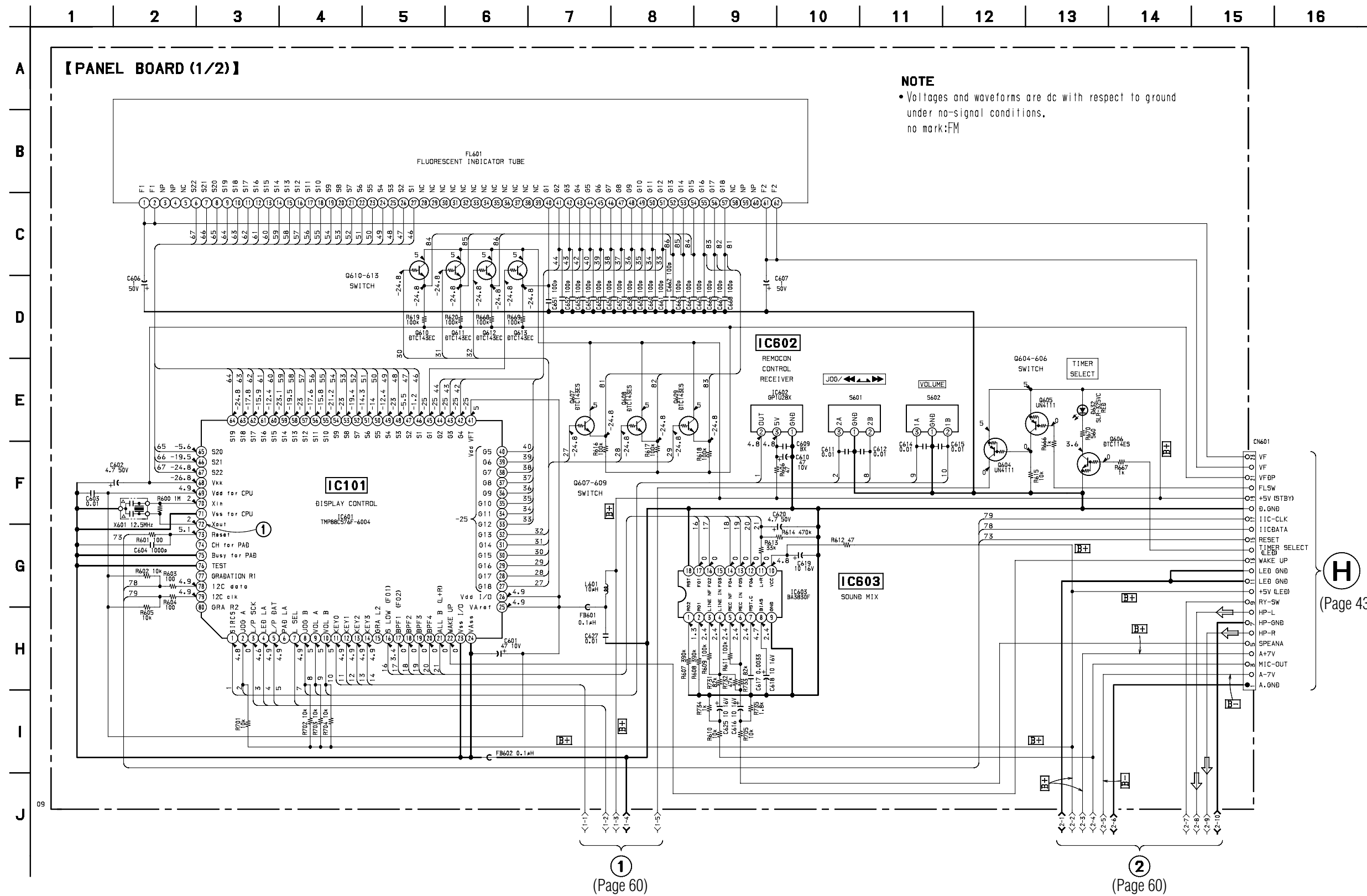
7-16. PRINTED WIRING BOARD – PANEL SECTION –
• See page 18 for Circuit Boards Location.

• Semiconductor
Location

Ref. No.	Location
D610	C-2
D611	D-1
D612	C-2
D613	C-5
D614	C-6
D615	C-7
D616	C-9
D619	B-2
D620	A-2
D621	B-9
D622	A-9
D624	D-4
D625	E-2
D626	F-4
D627	E-7
D628	E-4
D629	D-5
D630	E-7
D631	E-4
D632	F-8
IC601	B-5
IC602	B-10
IC603	B-7
IC604	C-3
IC712	F-8
Q601	C-2
Q602	C-1
Q603	C-1
Q604	A-2
Q605	A-2
Q606	B-3
Q607	A-9
Q608	A-9
Q609	A-9
Q610	B-9
Q611	B-9
Q612	B-8
Q613	B-8

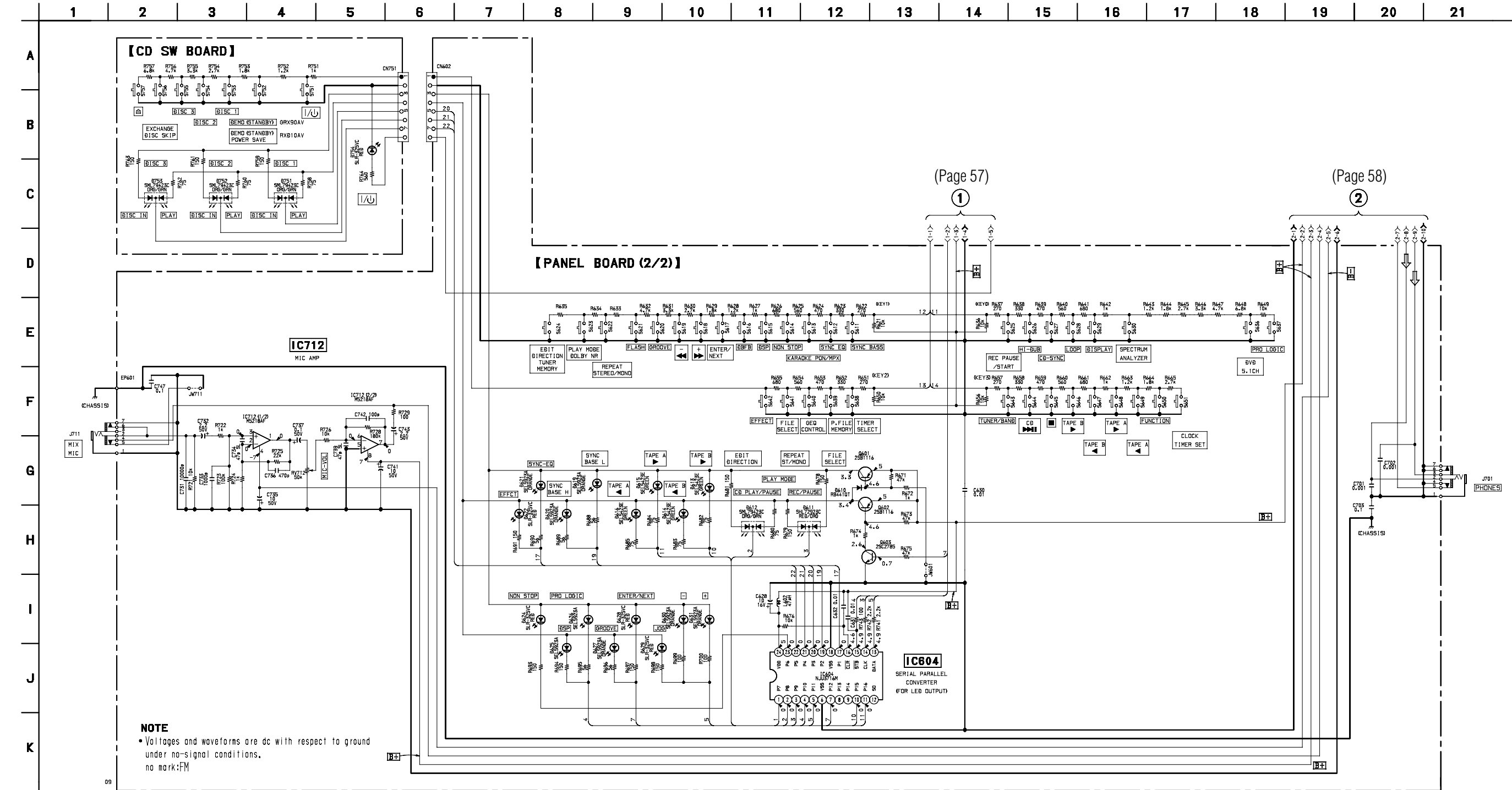


- See page 73 for IC Block Diagrams.
- See page 76 for IC Pin Functions.

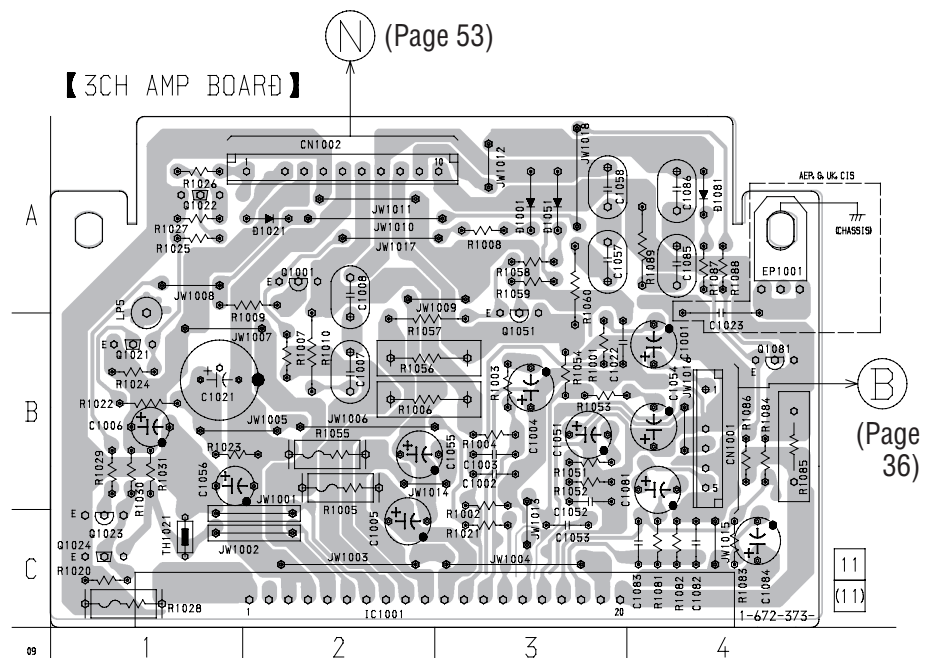


7-18. SCHEMATIC DIAGRAM – PANEL (2/2) SECTION –

- See page 30 for Waveforms.
- See page 51 for Printed Wiring Board.
- See page 73 for IC Block Diagrams.

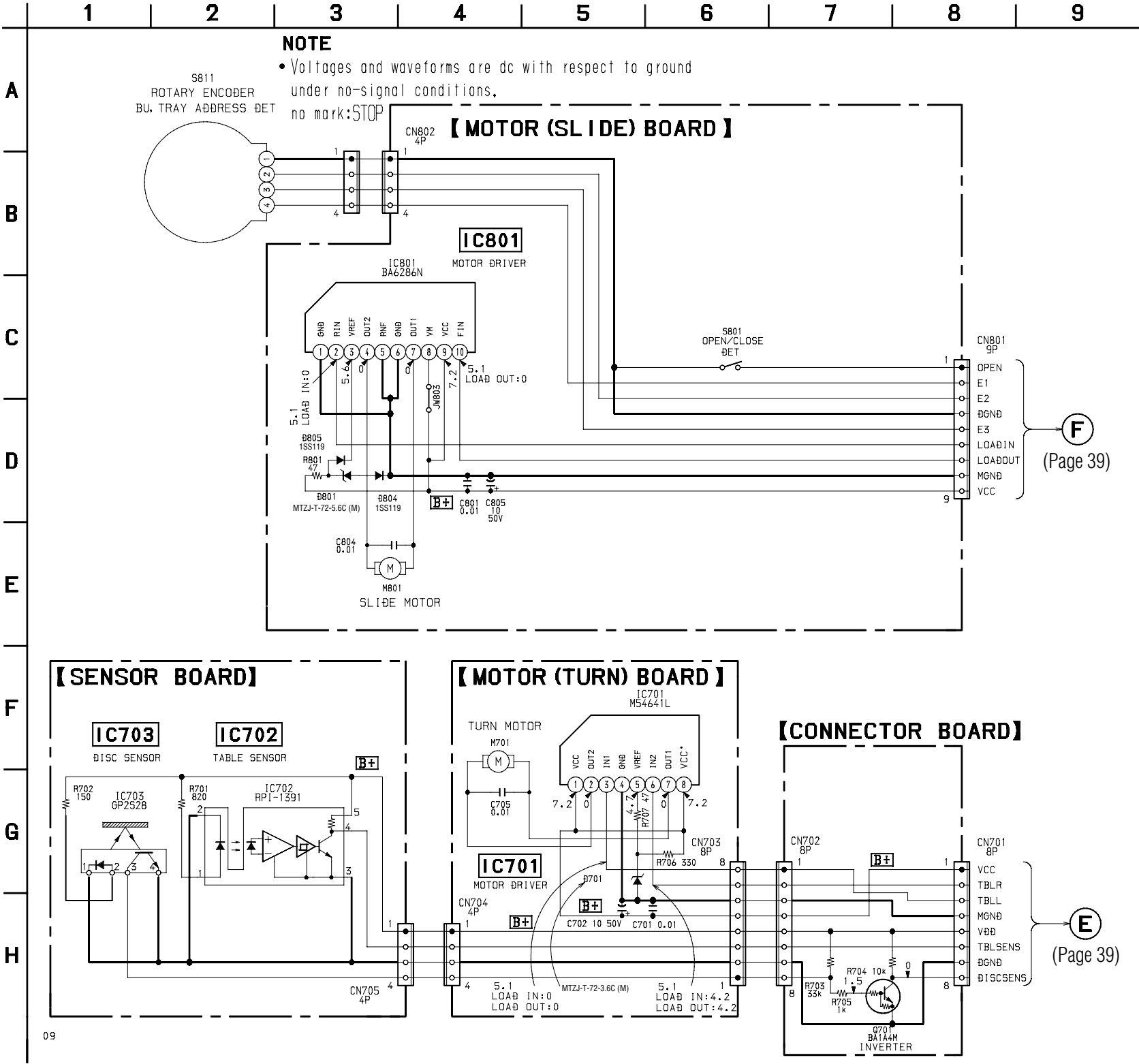


7-20. PRINTED WIRING BOARD – SURROUND SECTION –
• See page 18 for Circuit Boards Location.

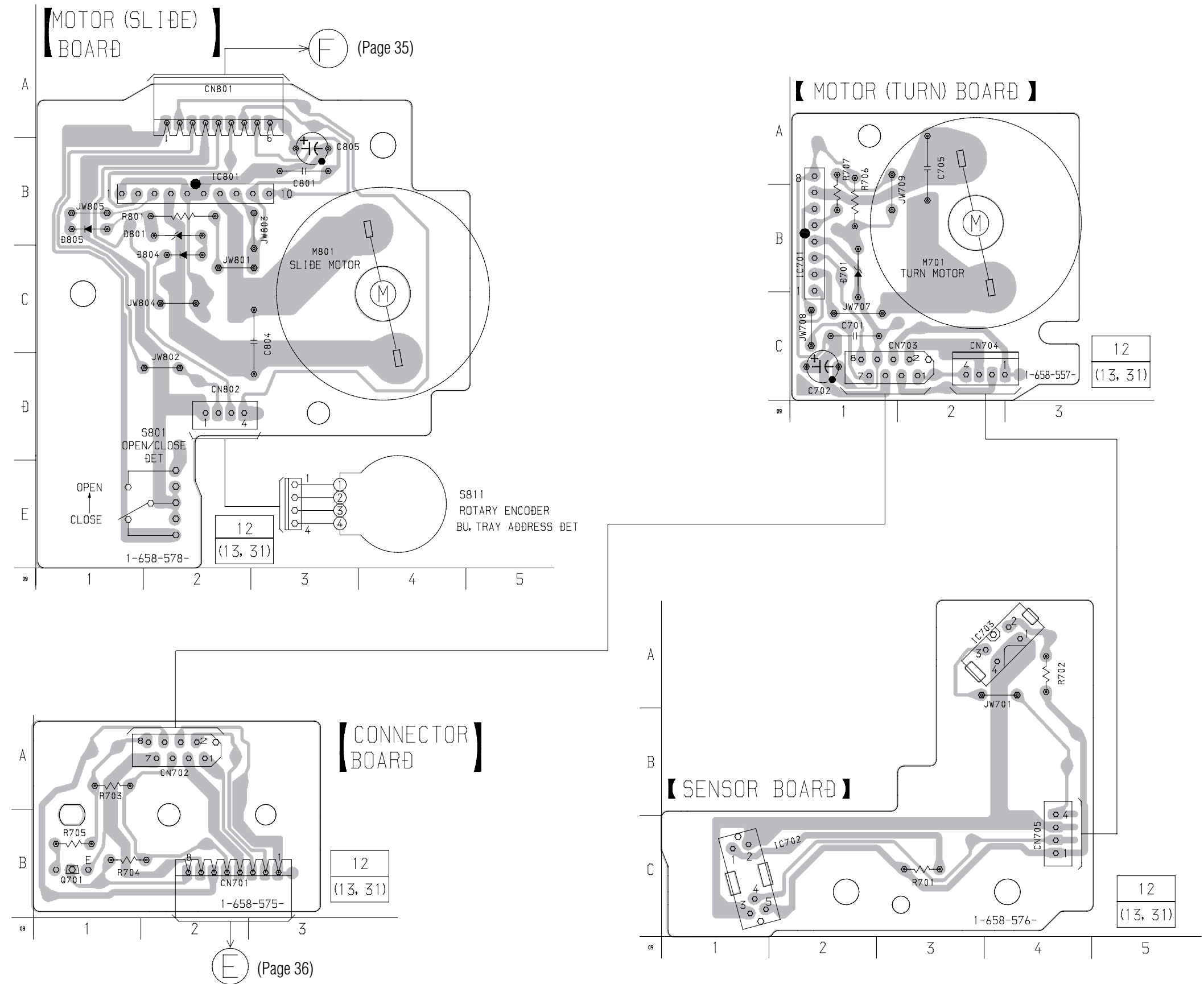


Ref. No.	Location
D1001	A-3
D1021	A-2
D1051	A-3
D1081	A-4
IC1001	C-2
Q1001	A-2
Q1021	B-1
Q1022	A-1
Q1023	C-1
Q1024	C-1
Q1051	B-3
Q1081	B-4

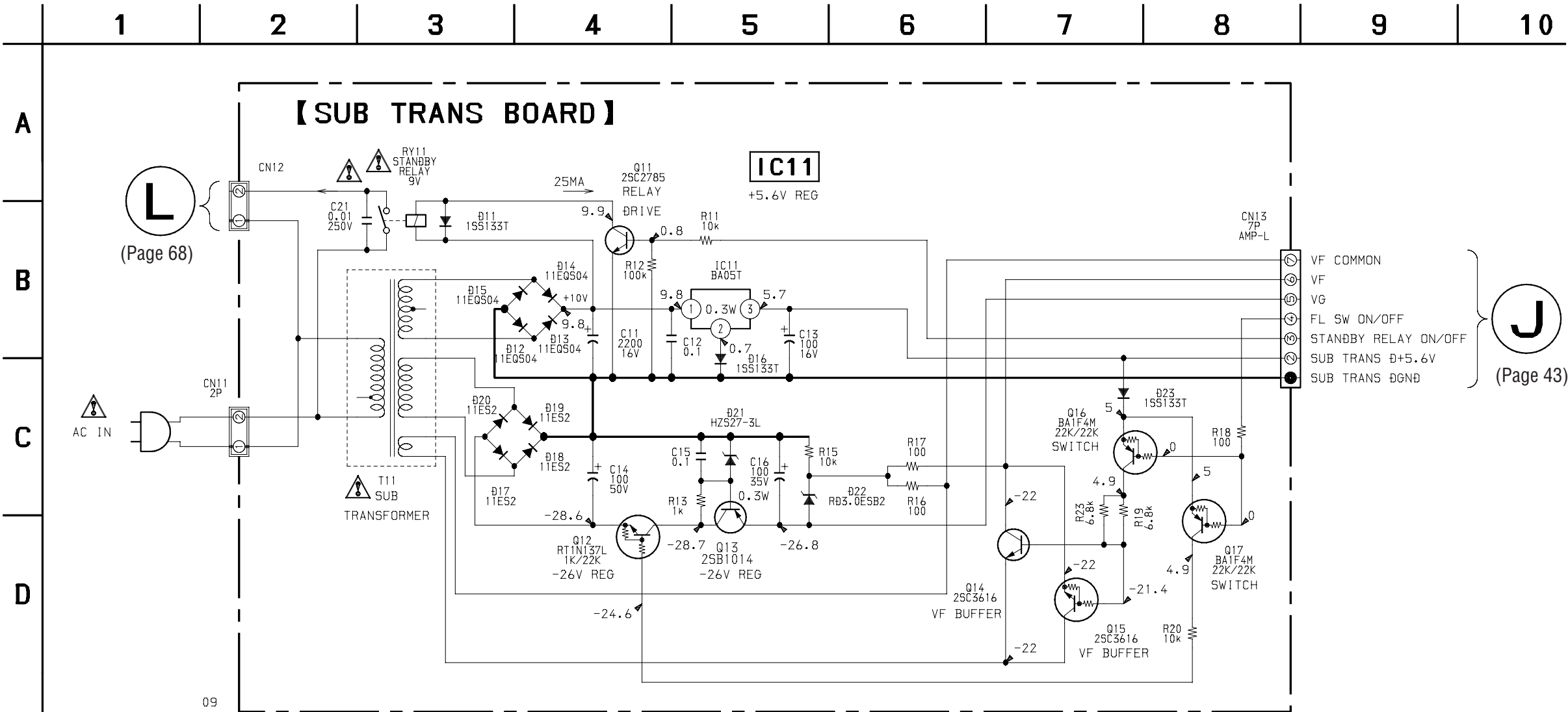
7-21. SCHEMATIC DIAGRAM – CD MOTOR SECTION –



7-22. PRINTED WIRING BOARD – CD MOTOR SECTION –
• See page 18 for Circuit Boards Location.



7-23. SCHEMATIC DIAGRAM – TRANS SECTION –
• See page 67 for Printed Wiring Board.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM

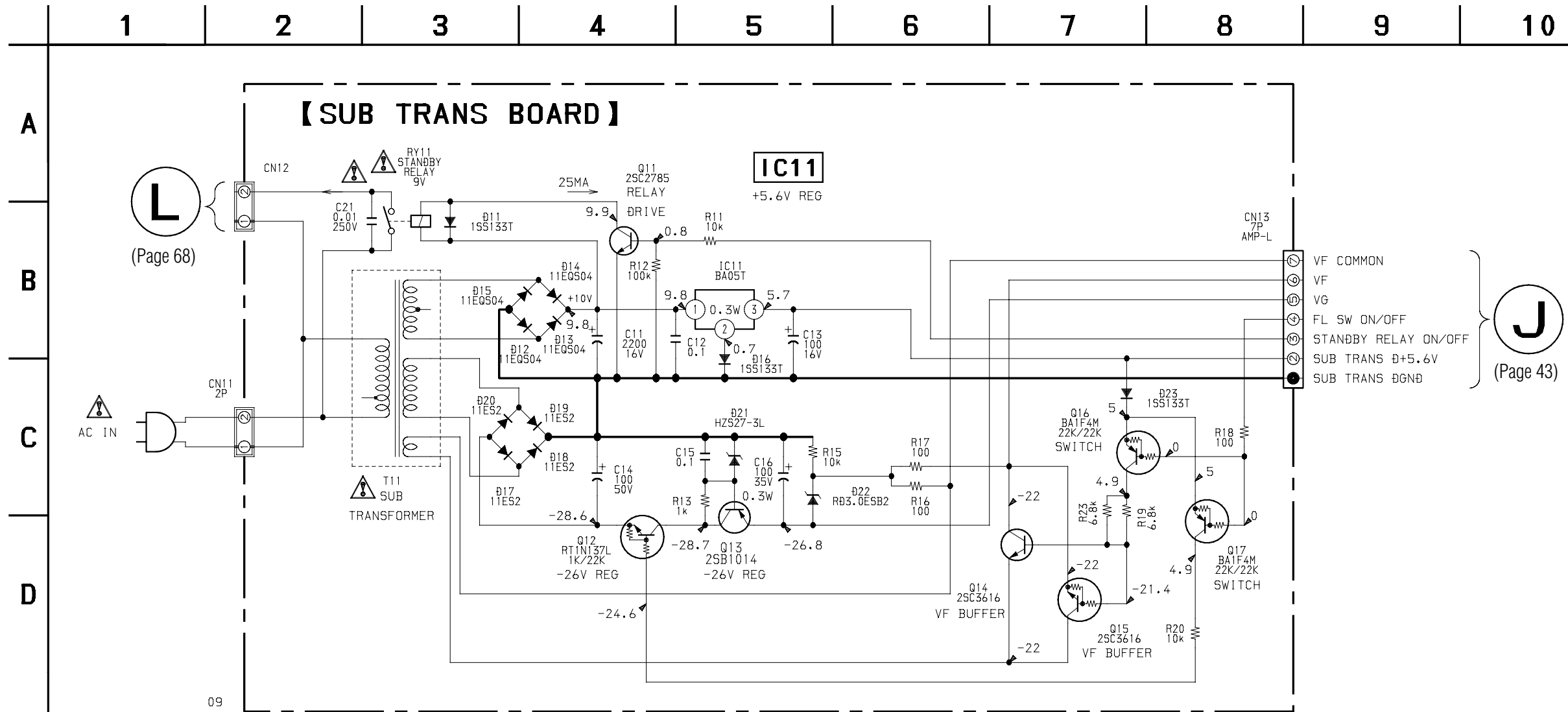
Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-24. SCHEMATIC DIAGRAM – SUB TRANS SECTION – (RXD10AV ONLY)
• See page 68 for Printed Wiring Board.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM

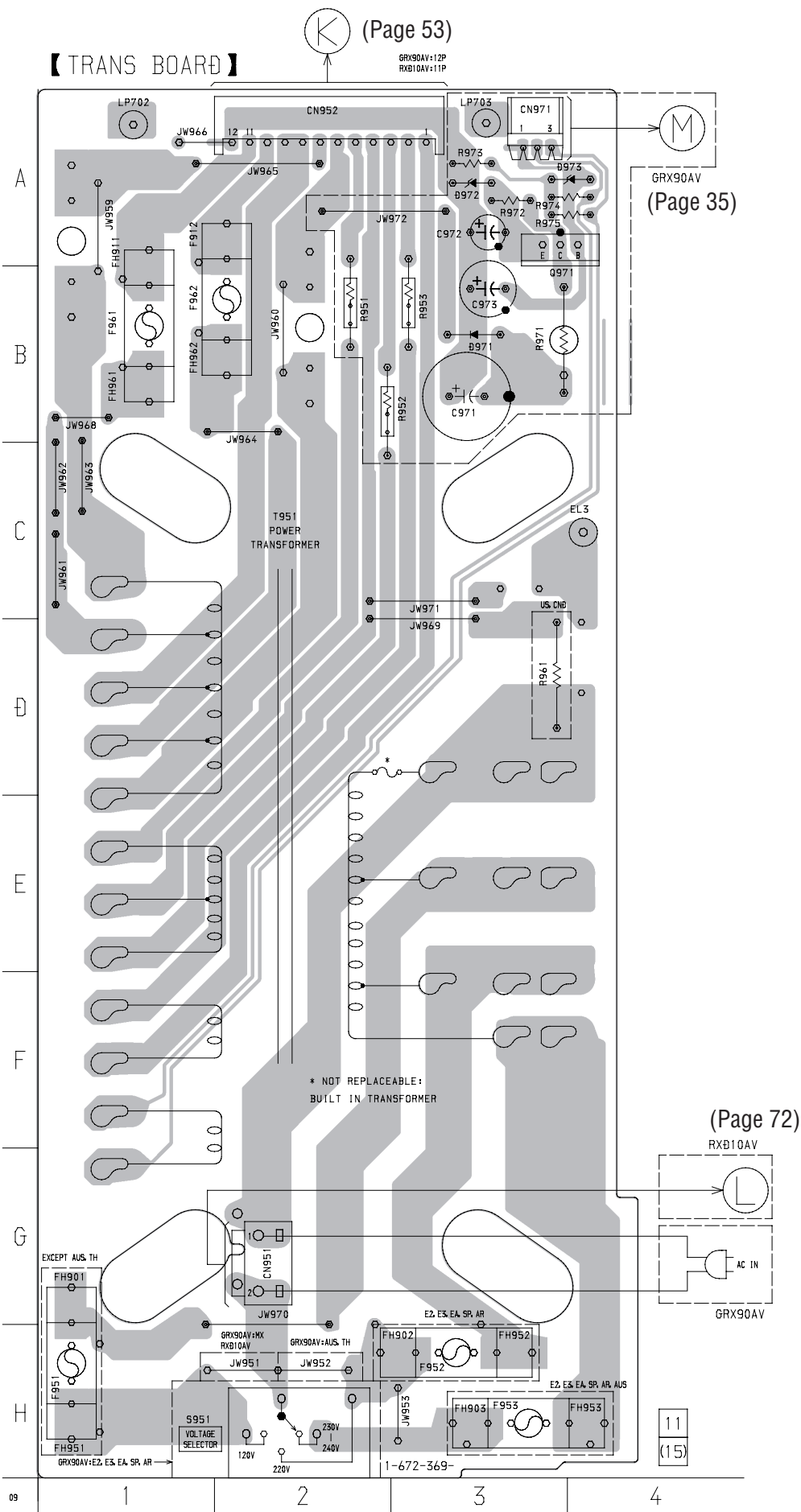
Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

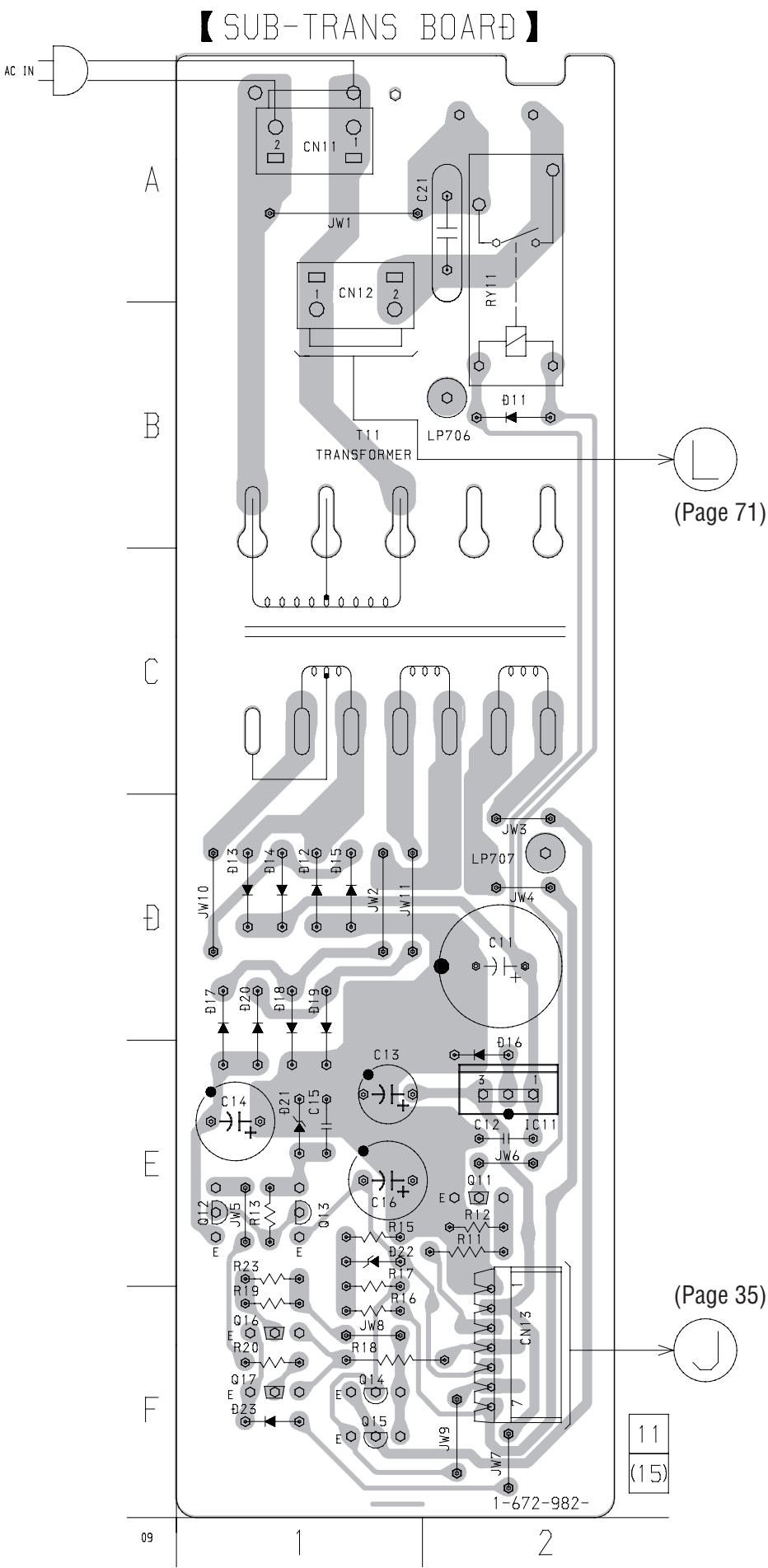
Note:

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-25. PRINTED WIRING BOARD – TRANS SECTION –
• See page 18 for Circuit Boards Location.



7-26. PRINTED WIRING BOARD – SUB TRANS SECTION – (RXD10AV ONLY)
• See page 18 for Circuit Boards Location.



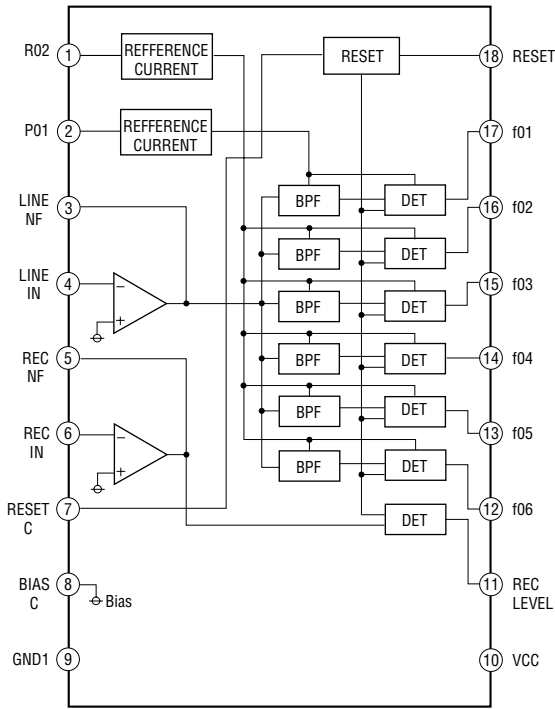
• Semiconductor
Location

Ref. No.	Location
D11	B-2
D12	D-1
D13	D-1
D14	D-1
D15	D-1
D16	E-2
D17	D-1
D18	D-1
D19	D-1
D20	D-1
D21	E-1
D22	E-1
D23	F-1
IC11	E-2
Q11	E-2
Q12	E-1
Q13	E-1
Q14	F-1
Q15	F-1
Q16	F-1
Q17	F-1

7-27. IC BLOCK DIAGRAMS

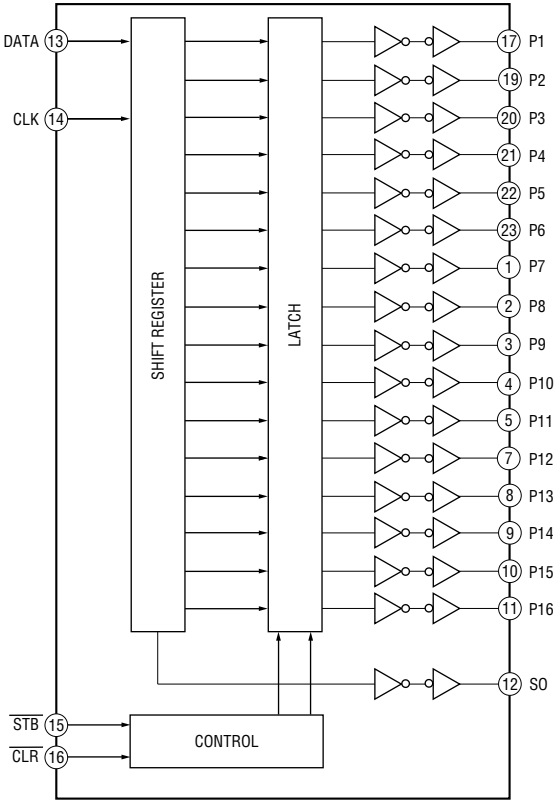
• PANEL (1/2) BOARD

IC603 BA3830F



• PANEL (2/2) BOARD

IC604 NJU3716M



7-28. IC PIN FUNCTIONS

• IC501 MASTER CONTROL (M306622MA-A088FP) (MAIN BOARD)

Pin No.	Pin Name	I/O	Function
1	STK-POWER	O	Power amp ON/OFF signal output
2	POWER	O	Power ON/OFF signal output
3	F-RELAY	O	Front speaker relay control output
4	REAR-RELAY	O	Rear speaker relay control output
5	CD-POWER	O	CD power on signal output
6	LINE-MUTE	O	Line mute ON/OFF selection output
7	DBFB-H/L	O	DBFB H/L select signal output
8, 9	–	–	Not used
10	XC-IN	I	X'tal (32.768MHz)
11	XC-OUT	O	
12	RESET	I	Reset signal input
13	X-OUT	O	X'tal (16MHz)
14	VSS	–	Ground
15	X-IN	I	X'tal (16MHz)
16	VCC	–	Power supply (+5V)
17	NMI	I	Not used (PULL UP EVER+5V)
18	WAKE UP	I	WAKE UP (Fixed at fixed at “L”)
19	SCOR	I	Subcode data request signal output
20	RDS-INT	I	RDS data interrupt input
21	RDS-DATA	I	
22	AC-CUT	I	Back up signal input
23	PL-CLK	O	Clock signal to pro-logic (IC201)
24	PL-DATA	O	Data signal to pro-logic (IC201)
25	PL-LAT	O	Latch signal to pro-logic (IC201)
26	TIMER LED	I	Timer LED ON/OFF
27	PROTECTOR	I	Speaker protect detect
28	–	–	Not used
29	IIC-CLK	O	Clock output for IC601
30	IIC-DATA	O	Data output for IC601
31	–	–	Not used
32	SQ-DATA	I	Subcode Q data clock input
33	SQ-CLK	I	
34	SW-MODE	O	Not used
35	CD-DATA	O	CD data output
36	RY-SW	I	Head phone switch detect
37	CD-CLK	O	CD clock output
38	493-LAT	O	Latch signal output for M62493FP (IC101)
39	ST-BY LED/ CLOCK-OUT	O	Stand by LED signal output (Clock output TEST MODE)
40	L+R/L-R	I	Not used
41	BY-PASS	I	
42	FL-SW	I	FL switch ON/OFF
43	STBY RELAY	I	Stand by relay ON/OFF
44	BASS FREQ	O	FREQ high/low signal for SYNC bass
45, 46	–	–	Not used
47	493-DATA	O	Data output for M62493FP (IC101)
48	493-CLK	O	Clock output for M62493FP (IC101)
49	ST-MUTE	O	Tuned mute signal output

Pin No.	Pin Name	I/O	Function
50	STEREO	I	Stereo detection for tuner
51	TUNED	I	Tuned detection for tuner
52	ST-CE	O	Tuner chip enable output
53	ST-DOUT	O	Tuner data output
54	ST-DIN	I	Tuner data input
55	ST-CLK	O	Tuned clock output
56	SENS	I	BD Condition signal input
57	HOLD	O	Mode hold signal output
58	XLT	O	CD latch signal output
59	XRST	O	CD reset signal output
60	DISC-SENS	I	Slit sensor of disc table input
61	T-SENS	I	CD table detection signal input
62	VCC	–	Power supply (+5V)
63	TBL-L	O	Table motor control output
64	VSS	–	Ground
65	TBL-R	O	Table motor control output
66	LOAD-OUT	O	Loading motor control signal output
67	LOAD-IN	O	
68	ENC 3/UP-SW	I	Disc tray address detect encoder input
69	ENC 2/DISC-LED	I	
70	ENC 1	I	
71	OUT-OPEN	O	Loading out detection signal output
72	B-TRG	O	Trigger motor control output
73	A-TRG	O	
74	CAP-M-CONT2	O	Capstan motor control 2(-) signal output
75	CAP-M-CONT1	O	Capstan motor control 1(-) signal output
76	CAP-M-H/L	O	Capstan motor H/L speed select signal output
77	AMS-IN	I	Connected to ground
78	TC-MUTE	O	TC mute ON/OFF selection output
79	REC/PB/PAS	O	REC/PB/PASS selection output
80	NR-ON/OFF	O	NR ON/OFF signal output
81	REC-MUTE	O	REC mute ON/OFF selection output
82	BIAS	O	Bias ON/OFF selection output
83	EQ-H/N	O	Equalizer H/N select output
84	PB-A/B	O	PB Deck A/Deck B select output
85	ALC	O	ALC ON/OFF output
86	B-PLAY-SW	I	Deck B play detect
87	A-PLAY-SW	I	Deck A play detect
88	A-HALF	I	Deck A cassette detect
89	B-HALF	I	Deck B cassette detect
90	B-SHUT	I	B Deck reel pulse detector
91	A-SHUT	I	A Deck reel pulse detector
92	SOFT-TEST	O	Software test port
93, 94	KEY/CD-ADJ	I	CD adjust point port
95	MODEL IN	I	Version select voltage input
96	AVSS	–	Ground
97	SPEC-IN	I	Version select voltage input
98	VREF	I	Analog reference voltage input
99	AVCC	–	Analog power supply
100	TC-RELAY	O	REC/PB head selection output for IC602

• IC601 DISPLAY CONTROL (TMP88CS76F-6004) (PANEL BOARD)

Pin No.	Pin Name	I/O	Function
1	SIRCS	I	Remote commander signal input
2	JOG A	I	Rotary encoder (S601) pulse input
3	L/P SCK	O	LED/PAD clock output
4	LED LA	O	LED latch output
5	L/P DAT	O	LED/PAD data output
6	PAD LA	O	PAD latch output (Not used)
7	L SEL	O	LED select signal
8	JOG B	I	Rotary encoder (S601) pulse input
9	VOL A	I	Rotary encoder (S602) pulse input
10	VOL B	I	
11 to 14	KEY 0 to KEY 3	I	Key input
15	GRA L 2	O	LED gradation signal (left) (Not used)
16	S LOW (F01)	O	Sptctrum analyzer input (Super low flegency) (40Hz)
17	BPF 1 (F02)	O	Sptctrum analyzer input (100Hz)
18	BPF 2	O	Sptctrum analyzer input (400Hz)
19	BPF 3	O	Sptctrum analyzer input (2KHz)
20	BPF 4	O	Sptctrum analyzer input (6KHz)
21	ALL B (L+R)	I	Sptctrum analyzer input (all band)
22	GLADATION R/WAKE UP	O	LED gradation signal (right)/WAKE UP signal
23	VSS I/O	–	Ground
24	VASS	–	Ground
25	VAref	I	Analog reference voltage input
26	VDD I/O	–	Power supply (+5V)
27 to 40	G 18 to G 5	O	FL gride signal output
41	VDD VFT	–	Power supply (+5V)
42 to 45	G 4 to G 1	O	FL gride signal output
46 to 67	S 1 to S 22	O	FL segment signal output
68	VKK	–	Power supply (-30V)
69	VDD for CPU	–	Power supply (+5V)
70	X IN	I	X'tal (12.5MHz)
71	VSS for CPU	–	Ground
72	X OUT	O	X'tal (12.5MHz)
73	RESET	I	Reset signal input from main controller
74	CH for PAD	O	Channel signal output for PAD (Not used)
75	BUSY for PAD	O	Busy signal output for PAD (Not used)
76	TEST	I	Connected ground
77	–	–	Not used (to ground)
78	IIC DATA	O	Data output for IC501
79	IIC CLK	O	Clock output for IC501
80	–	–	Not used (to ground)

SECTION 8

EXPLODED VIEWS

NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE)

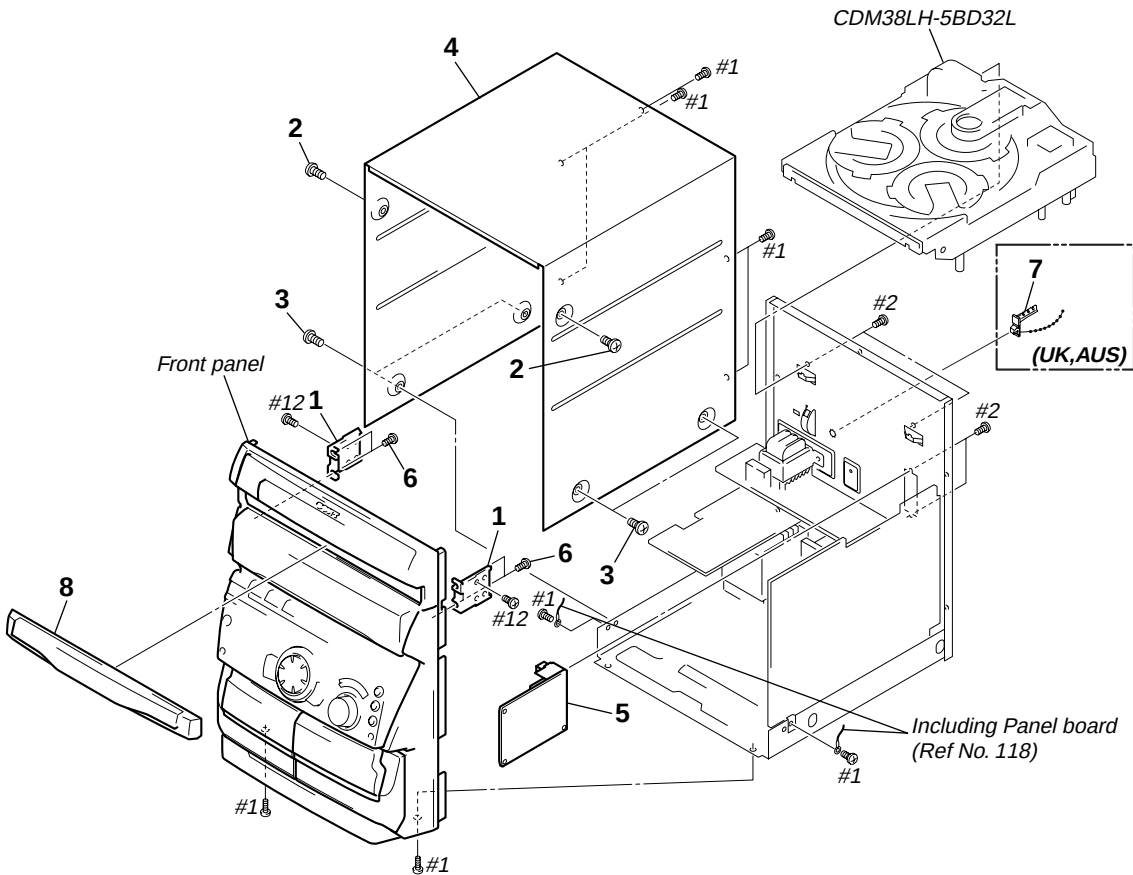
↑
Cabinets color

- Abbreviation
CND : Canadian model
G : German model
EA : Saudi Arabia model
MX : Mexican model
E2 : Without SW tuner model
E3 : With SW tuner model
SP : Singapore model
AUS : Australian model
AR : Argentine model
TH : Thai model

The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. CASE SECTION

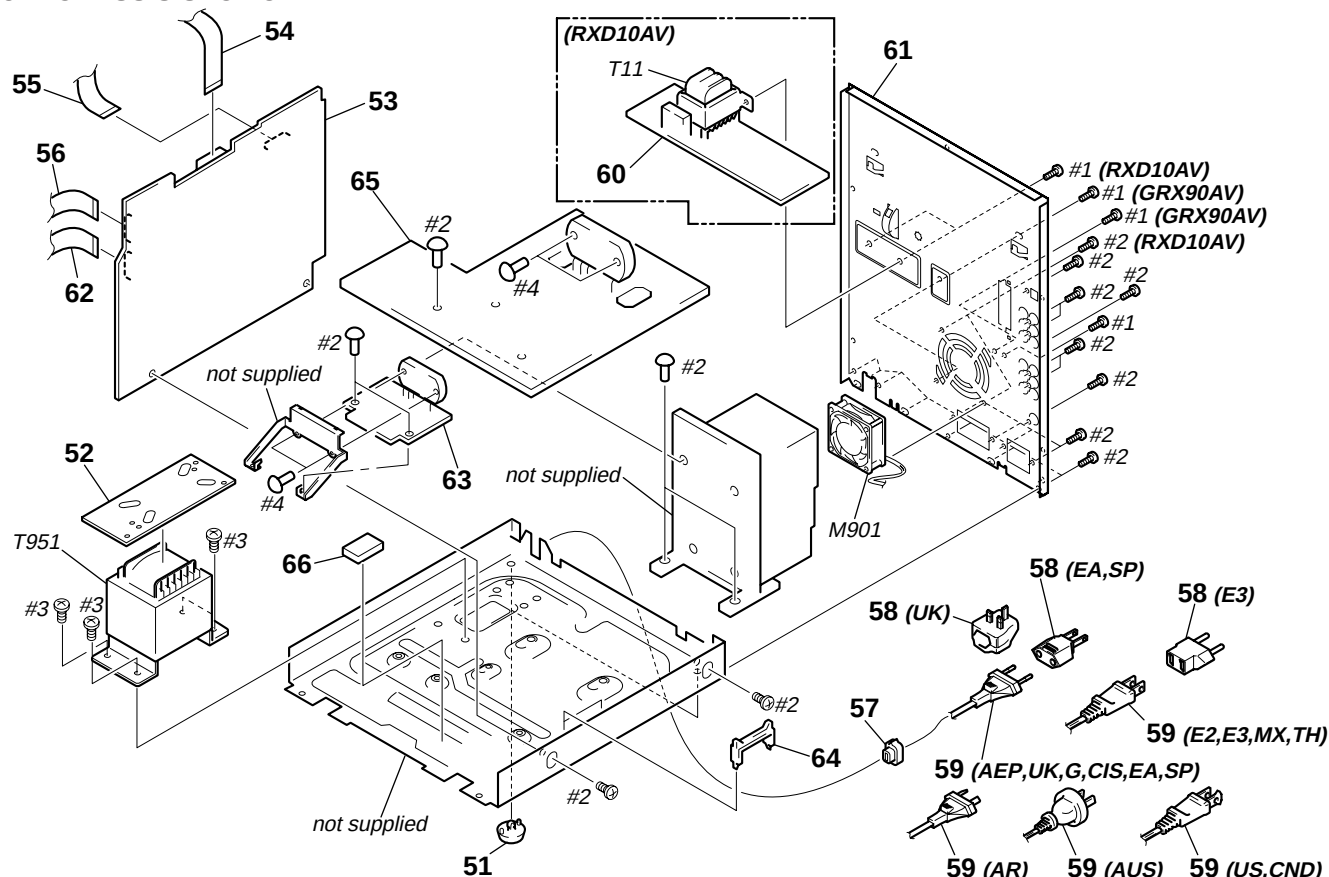


Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-996-716-01	HOLDER (CDM)		5	1-693-443-11	TUNER UNIT (FM/AM)(AEP,UK,G,CIS)	
2	3-363-099-41	SCREW (CASE 3 TP2)(GRAY)		5	1-693-445-11	TUNER UNIT (FM/AM)(US,CND)	
2	3-363-099-71	SCREW (CASE 3 TP2)(SILVER)		5	1-693-453-11	TUNER UNIT (FM/AM)(E2)	
3	3-363-099-01	SCREW (CASE 3 TP2)(GRAY)		6	4-951-620-01	SCREW (2.6X8), +BVTP	
3	3-363-099-11	SCREW (CASE 3 TP2)(SILVER)		7	4-956-370-12	BAND, PLUG FIXED (UK,AUS)	
4	4-214-443-01	CASE (SILVER)		8	X-4950-766-1	PANEL ASSY, LOADING (RXD10AV)	
4	4-215-752-01	CASE (GRAY)		8	X-4950-955-1	PANEL ASSY, LOADING (GRX90AV)(SILVER)	
5	1-233-545-11	TUNER UNIT (FM/AM)(AR,MX,AUS,TH)		8	X-4951-006-1	PANEL ASSY, LOADING (GRX90AV)(GRAY)	
5	1-233-546-11	TUNER UNIT (FM/MW/SW)(E3,EA,SP)					

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

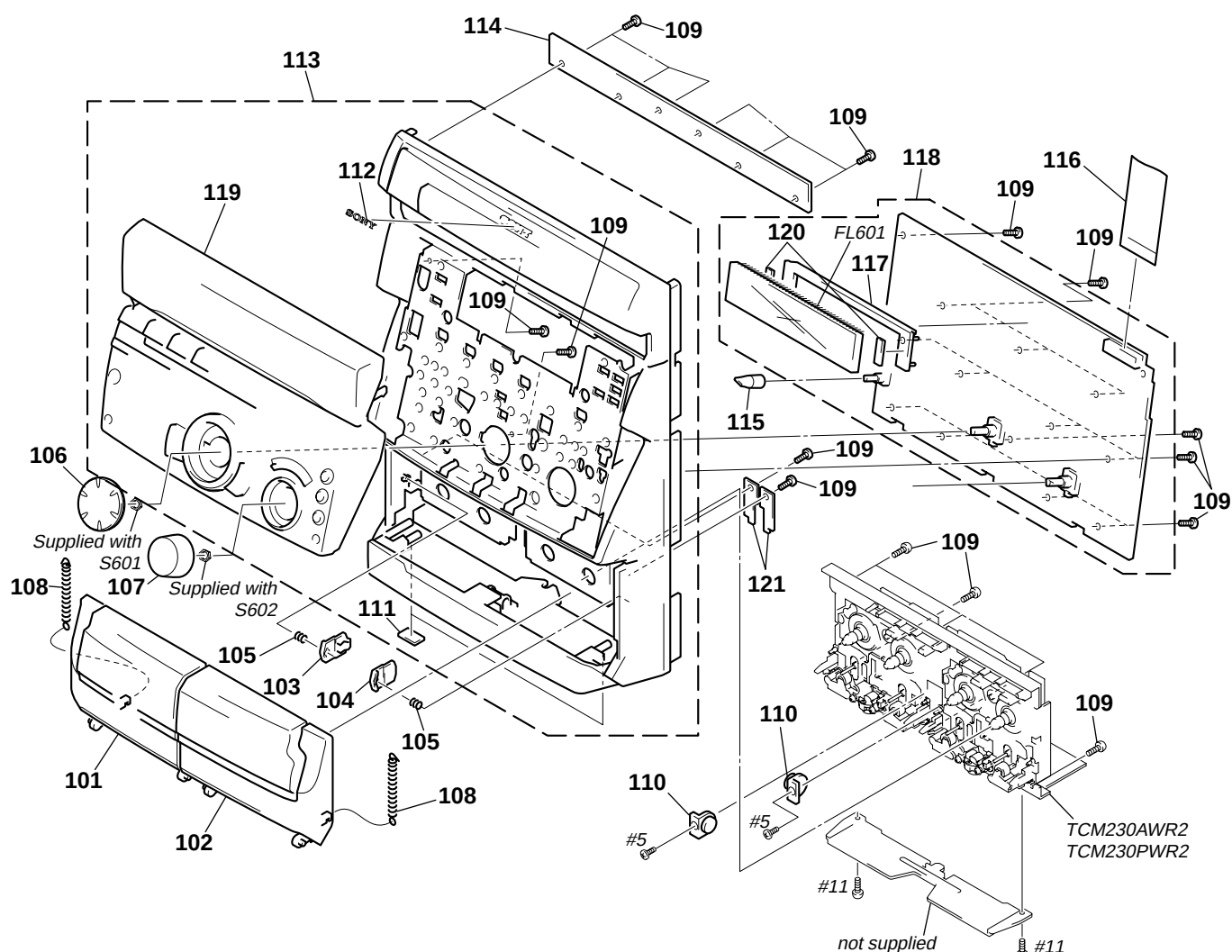
8-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	4-965-822-01	FOOT	
* 52	1-672-369-11	TRANS BOARD	
53	A-4417-758-A	MAIN BOARD, COMPLETE (E2,AR,MX,TH)	
53	A-4417-760-A	MAIN BOARD, COMPLETE (US)	
53	A-4417-779-A	MAIN BOARD, COMPLETE (AEP,UK,G,CIS)	
53	A-4417-788-A	MAIN BOARD, COMPLETE (E3,SP)	
53	A-4417-876-A	MAIN BOARD, COMPLETE (CND)	
53	A-4417-886-A	MAIN BOARD, COMPLETE (AUS)	
53	A-4417-906-A	MAIN BOARD, COMPLETE (EA)	
54	1-783-570-11	WIRE (FLAT TYPE)(19 CORE)	
55	1-769-976-11	WIRE (FLAT TYPE)(13 CORE) (US,CND,E2,MX,AUS,TH)	
55	1-773-008-11	WIRE (FLAT TYPE)(15 CORE)(140 mm) (AEP,UK,G,CIS,E3,EA,SP,AR)	
56	1-773-049-11	WIRE (FLAT TYPE)(17 CORE)	
57	3-703-244-00	BUSHING (FBS001), CORD (SP,AR,AUS/RXD10AV)	
57	3-703-571-11	BUSHING (S)(4516), CORD (TH)	
57	4-966-266-01	BUSHING (S)(FBS002), CORD (E2,E3,EA,MX)	
58	1-569-007-11	ADAPTOR, CONVERSION 2P (E3)	
58	1-569-008-21	ADAPTOR, CONVERSION 2P (EA,SP)	
58	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)	
Δ 59	1-575-651-11	CORD, POWER (AEP,UK,G,CIS,EA,SP)	
Δ 59	1-575-653-11	CORD, POWER (E2,E3,MX,TH)	
Δ 59	1-690-608-11	CORD, POWER (AUS)	
Δ 59	1-690-609-21	CORD, POWER (CND)	
Δ 59	1-783-531-21	CORD, POWER (US)	
Δ 59	1-783-941-21	CORD, POWER (AR)	
60	A-4419-128-A	SUB TRANS BOARD, COMPLETE (CND)	
60	A-4419-198-A	SUB TRANS BOARD, COMPLETE (US)	
60	A-4419-199-A	SUB TRANS BOARD, COMPLETE (AEP,UK,G,CIS)	
61	4-214-455-01	PANEL, BACK (E2,AR)	
61	4-214-455-11	PANEL, BACK (EA)	

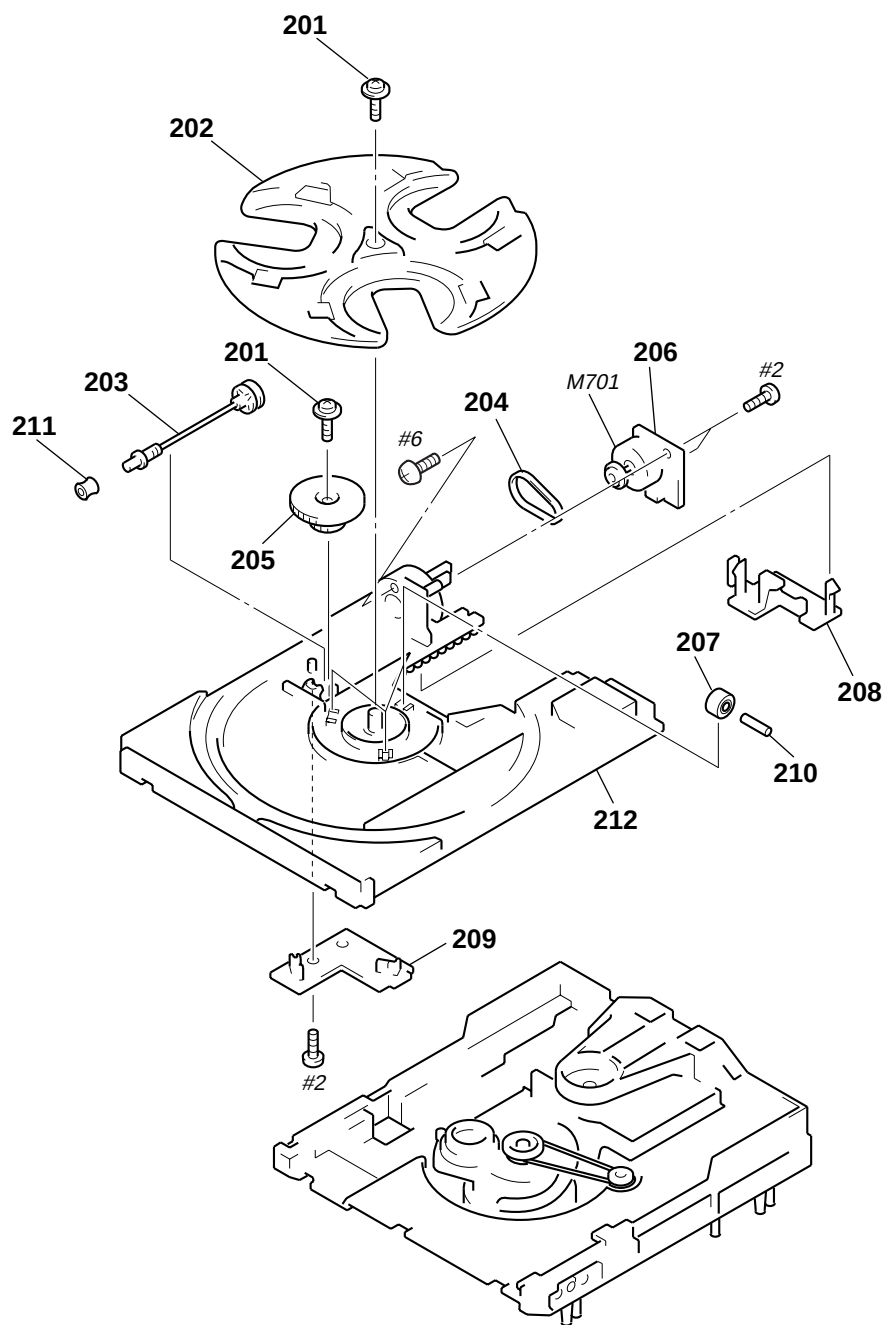
Ref. No.	Part No.	Description	Remark
61	4-214-455-21	PANEL, BACK (SP)	
61	4-214-455-51	PANEL, BACK (MX)	
61	4-214-455-61	PANEL, BACK (AUS)	
61	4-214-455-71	PANEL, BACK (AEP,UK,G,CIS) (INDONESIA PRODUCT)	
61	4-214-455-91	PANEL, BACK (US)	
61	4-215-171-01	PANEL, BACK (CND)	
61	4-215-171-11	PANEL, BACK (E3)	
61	4-215-171-21	PANEL, BACK (TH)	
61	4-215-171-31	PANEL, BACK (AEP)(THAI PRODUCT)	
62	1-773-023-11	WIRE (FLAT TYPE)(15 CORE)(310 mm)	
63	A-4417-772-A	3CH AMP BOARD, COMPLETE (US)	
63	A-4417-785-A	3CH AMP BOARD, COMPLETE (AEP,UK,G,CIS)	
63	A-4417-794-A	3CH AMP BOARD, COMPLETE (E2,E3,EA,SP,AR,MX,AUS,TH)	
63	A-4417-880-A	3CH AMP BOARD, COMPLETE (CND)	
* 64	4-988-533-01	PCB HOLDER	
65	A-4417-769-A	FRONT AMP BOARD, COMPLETE (US)	
65	A-4417-783-A	FRONT AMP BOARD, COMPLETE (AEP,UK,G,CIS)	
65	A-4426-201-A	FRONT AMP BOARD, COMPLETE (E2,E3,EA,SP,AR,MX,AUS)	
65	A-4417-878-A	FRONT AMP BOARD, COMPLETE (CND)	
65	A-4417-936-A	FRONT AMP BOARD, COMPLETE (TH)	
66	4-985-642-01	CUSHION	
M901	1-698-792-11	FAN, DC (RXD10AV)	
M901	1-763-072-11	FAN, DC (GRX90AV)	
Δ T11	1-433-590-11	TRANSFORMER, POWER (US,CND)	
Δ T11	1-433-591-11	TRANSFORMER, POWER (AEP,UK,G,CIS)	
Δ T951	1-433-552-11	TRANSFORMER, POWER (US)	
Δ T951	1-433-553-11	TRANSFORMER, POWER (CND)	
Δ T951	1-433-554-11	TRANSFORMER, POWER (AEP,UK,G,CIS)	
Δ T951	1-433-555-11	TRANSFORMER, POWER (E2,E3,EA,SP,AR,MX,AUS,TH)	

8-3. FRONT PANEL SECTION



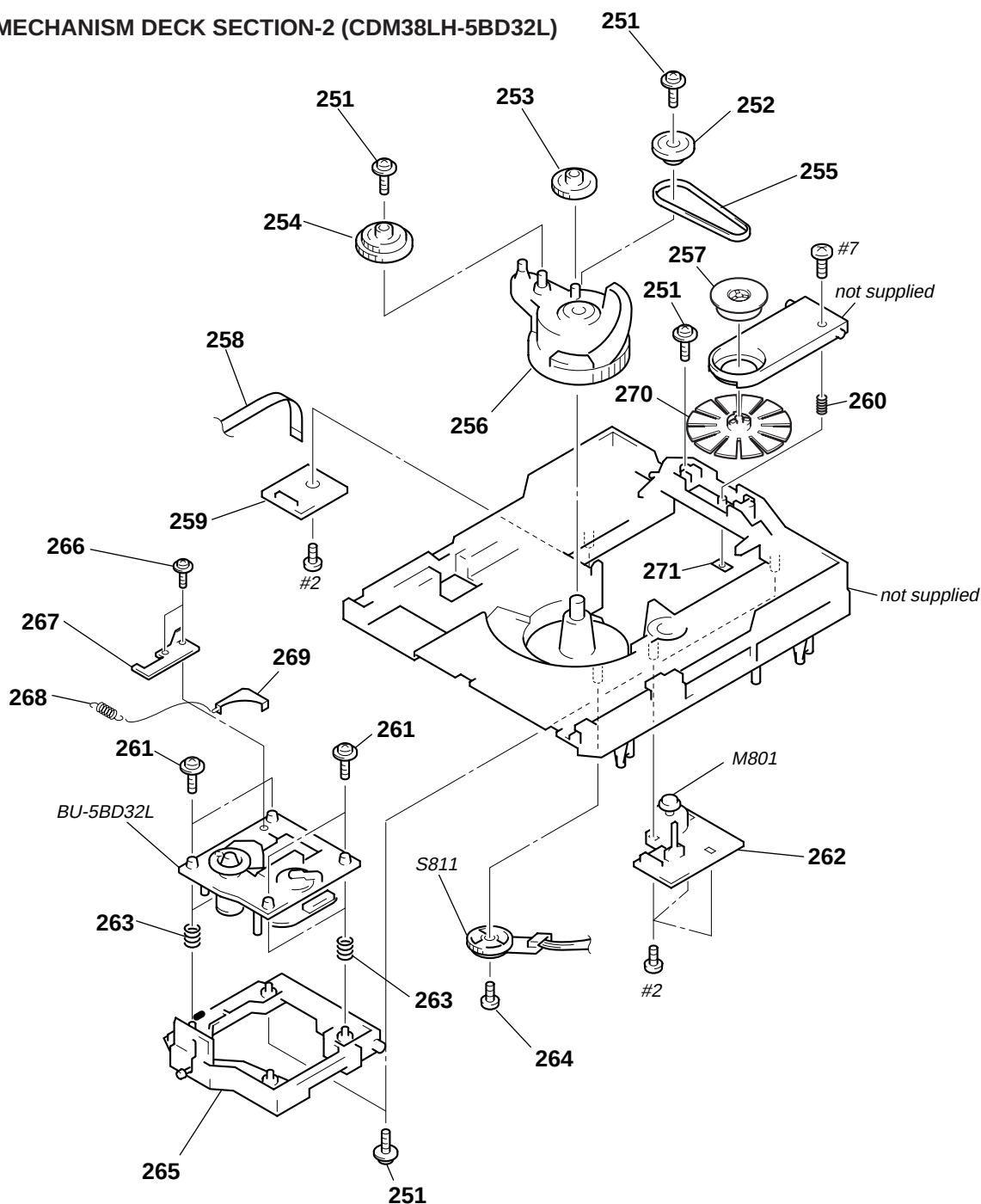
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-4951-067-1	HOLDER (L) ASSY, CASSETTE (SILVER)		113	X-4951-041-1	PANEL ASSY, FRONT (AEP,UK,G,CIS)	
101	X-4951-069-1	HOLDER (L) ASSY, CASSETTE (GRAY)		113	X-4951-042-1	PANEL ASSY, FRONT (US,CND)	
102	X-4951-068-1	HOLDER (R) ASSY, CASSETTE (SILVER)		113	X-4951-136-1	PANEL ASSY, FRONT (E2,SP,AR,MX,AUS,TH)(SILVER)	
102	X-4951-070-1	HOLDER (R) ASSY, CASSETTE (GRAY)					
103	4-214-760-11	CATCHER (A), PUSH		114	A-4417-826-A	CD SW BOARD, COMPLETE	
				115	4-214-385-11	KNOB (MIC)(SILVER)	
104	4-214-761-11	CATCHER (B), PUSH		115	4-214-385-41	KNOB (MIC)(GRAY)	
105	4-214-775-02	SPRING, PUSH CATCHER RETURN		116	1-773-189-11	WIRE (FLAT TYPE)(23 CORE)	
106	4-214-383-11	KNOB (JOG)(SILVER)		117	4-214-439-01	HOLDER, FL TUBE	
106	4-214-383-41	KNOB (JOG)(GRAY)					
107	4-214-384-11	KNOB (VOL)(SILVER)		118	A-4417-775-A	PANEL BOARD, COMPLETE	
				119	X-4951-440-1	PANEL ASSY, SUB (E3,EA)(GRAY)	
107	4-214-384-41	KNOB (VOL)(GRAY)		119	X-4951-441-1	PANEL ASSY, SUB (AEP,UK,G,CIS)	
108	4-220-008-01	SPRING, EXTENSION		119	X-4951-442-1	PANEL ASSY, SUB (US,CND)	
109	4-951-620-01	SCREW (2.6X8), +BVTP		119	X-4951-443-1	PANEL ASSY, SUB (E2,SP,MX,AR,AS)(SILVER)	
110	4-210-045-02	DAMPER					
111	4-988-663-01	FOOT (FELT)		* 120	4-949-935-81	CUSHION (FL)	
				121	1-674-232-11	PUSH CATCH STOP BOARD	
112	4-962-708-81	EMBLEM (4-A), SONY		FL601	1-517-831-11	INDICATOR TUBE, FLUORESCENT	
113	X-4951-040-1	PANEL ASSY, FRONT (E3,EA)(GRAY)					

8-4. CD MECHANISM DECK SECTION-1 (CDM38LH-5BD32L)



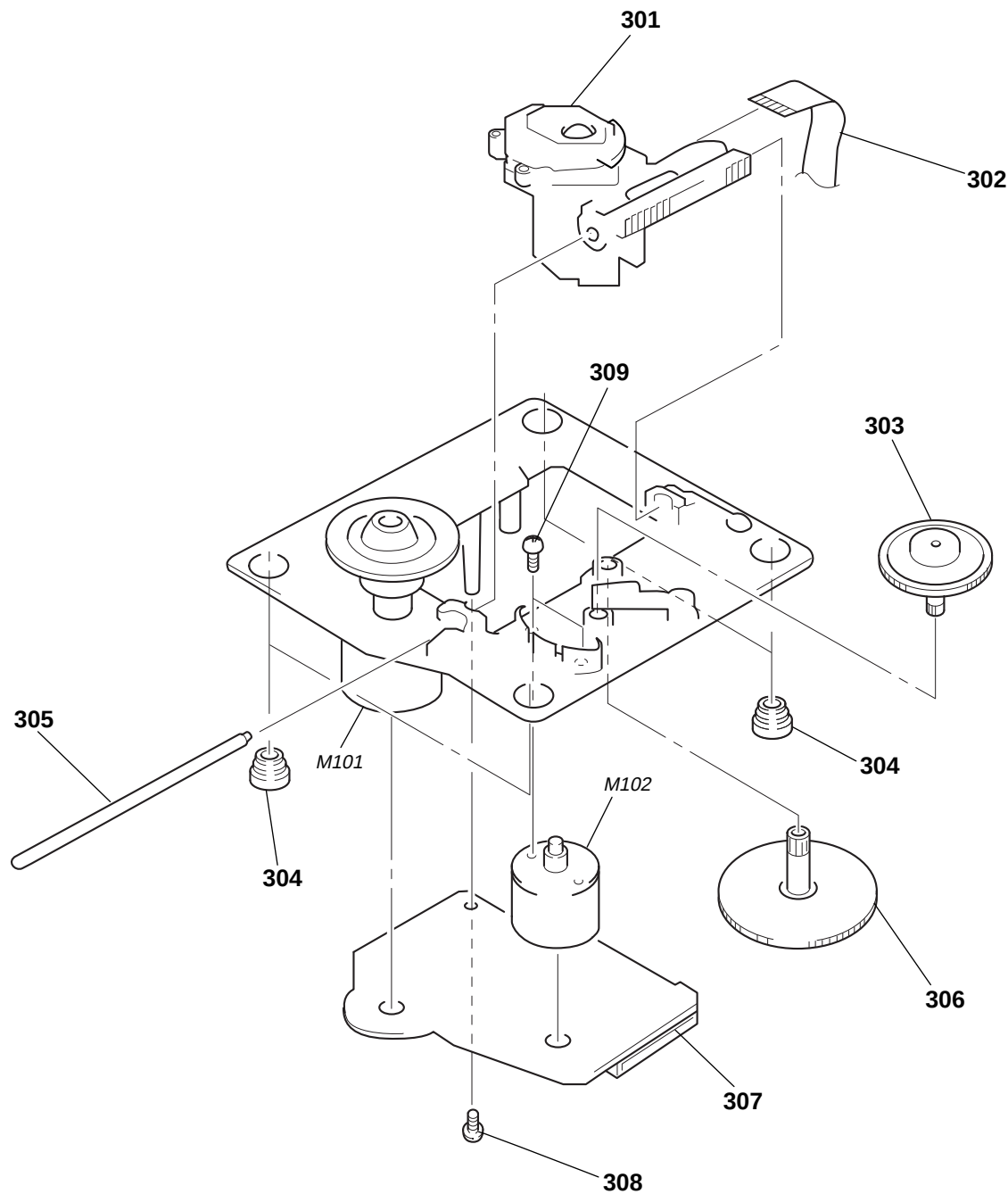
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-981-789-01	BRACKET, YOKE		207	4-988-162-01	ROLLER	
202	4-977-945-01	TRAY (TURN)		208	4-977-941-01	BEARING (WORM)	
203	X-4946-665-1	SHAFT ASSY, WORM		* 209	1-658-576-11	SENSOR BOARD	
204	4-977-943-01	BELT (TURN) (1.2)		210	4-934-376-01	SHAFT (ROLLER)	
205	4-977-956-01	WHEEL, WORM		211	4-981-187-01	COLLAR (WORM)	
* 206	1-658-577-11	MOTOR (TURN) BOARD		212	4-977-944-01	TRAY (SLIDE)	
				M701	A-4672-004-A	MOTOR ASSY (TURN)	

8-5. CD MECHANISM DECK SECTION-2 (CDM38LH-5BD32L)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-917-583-71	BRACKET, YOKE		263	4-982-447-01	SPRING (BU), COMPRESSION	
252	4-977-954-01	PULLEY (SL)		264	4-951-620-41	SCREW (2.6), +BVTP	
253	4-977-953-01	GEAR (SL-A)		265	X-4949-570-1	HOLDER (BU) ASSY	
254	4-977-955-01	GEAR (SL-B)					
255	4-977-942-01	BELT (SL) (1.4)		266	4-989-494-01	SCREW (SLIDER), STEP	
				267	4-989-492-11	SLIDER (38)	
256	X-4946-667-1	CAM ASSY, BU		268	4-989-819-02	SPRING, TENSION	
257	1-452-925-21	MAGNET ASSY		269	4-989-491-01	COVER, LENS	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)		270	4-993-142-21	PULLEY (L), PRESS	
* 259	1-658-575-11	CONNECTOR BOARD		* 271	4-900-718-01	BRACKET (ADJUSTMENT)	
260	4-900-743-01	SPRING, COMPRESSION		S811	1-473-335-11	ENCODER, ROTARY	
				M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING					
* 262	1-658-578-11	MOTOR (SLIDE) BOARD					

8-6. BASE UNIT SECTION (BU-5BD32L)

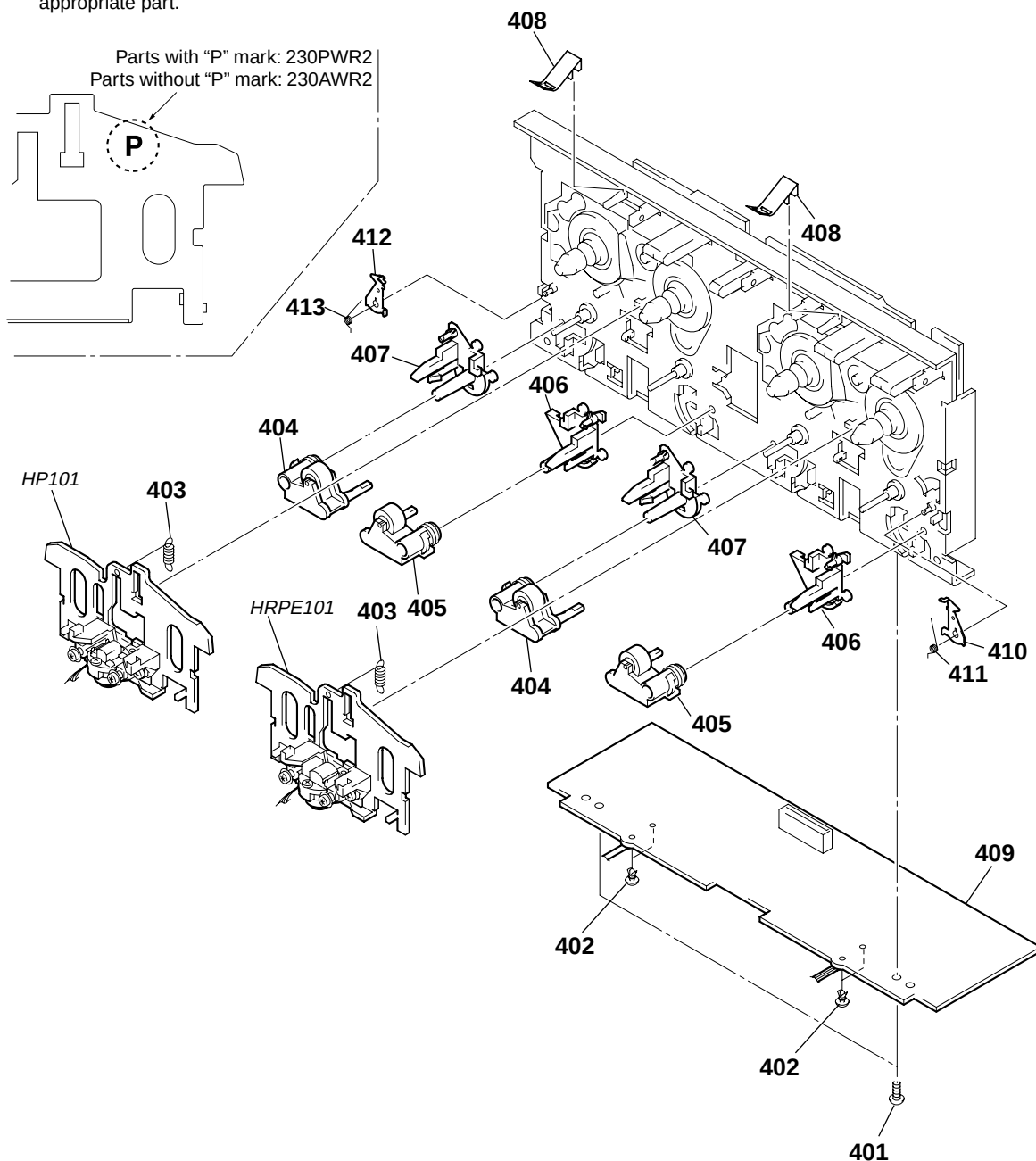


The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
$\triangle$ 301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP		306	4-917-564-01	GEAR (P), FLATNESS	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		* 307	A-4724-486-A	BD BOARD, COMPLETE	
303	4-917-567-01	GEAR (M)		308	4-951-620-01	SCREW (2.6X8), +BVTP	
304	4-951-940-01	INSULATOR (BU)		309	3-713-786-51	SCREW +P 2X3	
305	4-917-565-01	SHAFT, SLED		M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
				M102	X-4917-504-1	MOTOR ASSY (SLED)	

8-7. TC MECHANISM SECTION-1 (TCM230AWR2/230PWR2)

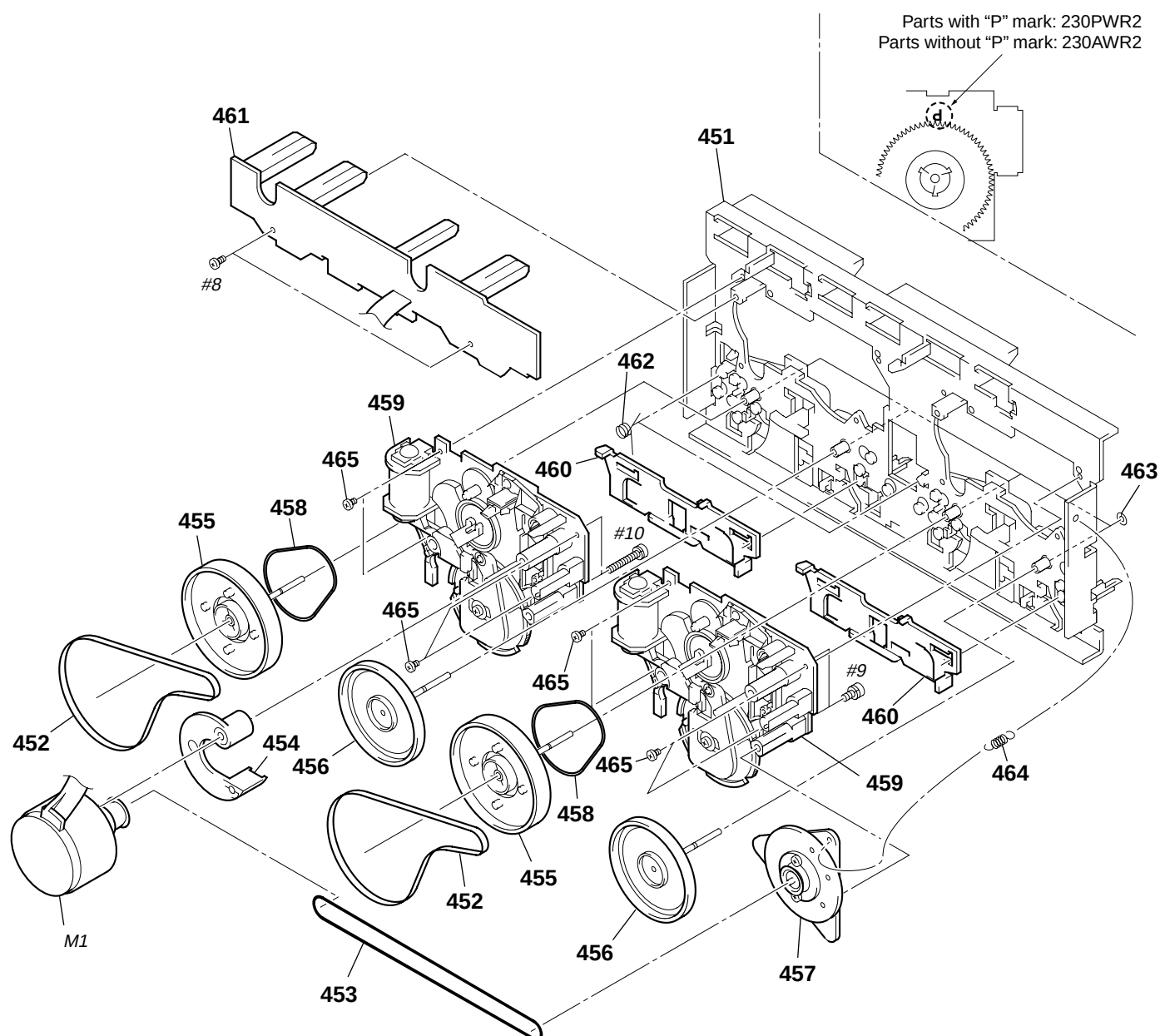
*NOTE: Two types of parts which are not interchangeable are available for the Head deck (A) ASSY and Head deck (B) ASSY.
When replacing the parts, refer to the following figure, and use the appropriate part.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW(+PTT 2.6X6),GROUND POINT		410	3-016-573-01	LEVER (EJECT PREVENTION R)	
402	3-911-116-21	RIVET, PUSH		411	3-032-810-02	SPRING (R), TORSION	
403	3-016-574-11	SPRING (HEAD), TENSION		412	3-016-572-01	LEVER (EJECT PREVENTION L)	
404	X-3374-156-4	PINCH LEVER (REV) ASSY		413	3-032-809-02	SPRING (L), TORSION	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY		HP101	A-2056-681-A	DECK (A) ASSY, HEAD (230AWR2)(*NOTE)	
406	3-016-564-01	BASE (PINCH LEVER FWD)		HP101	A-2056-683-A	DECK (A) ASSY, HEAD (230PWR2)(*NOTE)	
407	3-016-565-01	BASE (PINCH LEVER REV)		HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (230AWR2)(*NOTE)	
408	3-026-892-01	SPRING (CASSETTE), LEAF		HRPE101	A-2056-684-A	DECK (B) ASSY, HEAD (230PWR2)(*NOTE)	
* 409	A-2007-731-A	AUDIO BOARD, COMPLETE					

8-8. TC MECHANISM SECTION-2 (TCM230AWR2/230PWR2)

*NOTE: Two types of parts which are not interchangeable are available for the mechanical block assembly. When replacing the parts, refer to the following figure, and use the appropriate part.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 451	X-3374-214-3	CHASSIS ASSY, MAIN		459	A-2004-629-B	MECHANICAL BLOCK ASSY (230PWR2)(*NOTE)	
452	3-016-570-01	BELT (CAPSTAN)		460	3-016-566-01	SLIDER, REVERSE	
453	3-016-569-01	BELT (TENSION)		* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
454	3-017-360-01	BRACKET (MOTOR)		462	3-016-575-11	SPRING, TORSION	
455	X-3376-497-1	FLYWHEEL (FWD) ASSY		463	3-019-208-01	WASHER, STOPPER	
456	X-3374-235-1	FLYWHEEL (REV) ASSY		464	3-027-453-01	SPRING (GROUND), TENSION	
457	X-3374-238-1	PULLEY ASSY, TENSION		465	3-030-823-01	SCREW (+BVTT) (2X3.5)	
458	3-024-405-01	BELT (FR2)		M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	
459	A-2004-629-A	MECHANICAL BLOCK ASSY (230AWR2)(*NOTE)					

SECTION 9 ELECTRICAL PARTS LIST

3CH AMP

Note:

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...

- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Abbreviation
CND : Canadian model
G : German model
EA : Saudi Arabia model
MX : Mexican model
E2 : Without SW tuner model
E3 : With SW tuner model
SP : Singapore model
AUS : Australian model
AR : Argentine model
TH : Thai model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4417-772-A	3CH AMP BOARD, COMPLETE (US) *****		C1082	1-162-286-21	CERAMIC 220PF 10% 50V	
	A-4417-785-A	3CH AMP BOARD, COMPLETE (AEP,UK,G,CIS) *****		C1083	1-162-282-31	CERAMIC 100PF 10% 50V	
	A-4417-794-A	3CH AMP BOARD, COMPLETE ***** (E2,E3,EA,SP,AR,MX,AUS,TH)		C1084	1-104-664-11	ELECT 47uF 20% 10V (GRX90AV/RXD10AV:AEP,UK,G,CIS)	
	A-4417-880-A	3CH AMP BOARD, COMPLETE (CND) ***** < CAPACITOR >		C1084	1-126-967-11	ELECT 47uF 20% 50V (RXD10AV:US,CND)	
C1001	1-126-963-11	ELECT 4.7uF 20% 50V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		C1085	1-136-495-11	FILM 0.068uF 5% 50V	
C1001	1-128-582-11	ELECT 10uF 20% 100V (RXD10AV:US,CND)		C1086	1-136-495-11	FILM 0.068uF 5% 50V	
C1002	1-162-286-21	CERAMIC 220PF 10% 50V				< CONNECTOR >	
C1003	1-162-282-31	CERAMIC 100PF 10% 50V		CN1001	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
C1004	1-104-664-11	ELECT 47uF 20% 10V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		CN1002	1-691-772-11	PLUG (MICRO CONNECTOR) 10P	
C1004	1-126-967-11	ELECT 47uF 20% 50V (RXD10AV:US,CND)				< DIODE >	
C1005	1-128-560-11	ELECT 22uF 20% 100V		D1001	8-719-991-33	DIODE 1SS133T-77	
C1006	1-136-165-00	FILM 0.1uF 5% 50V		D1021	8-719-991-33	DIODE 1SS133T-77	
C1007	1-136-495-11	FILM 0.068uF 5% 50V		D1051	8-719-991-33	DIODE 1SS133T-77	
C1008	1-136-495-11	FILM 0.068uF 5% 50V		D1081	8-719-991-33	DIODE 1SS133T-77	
C1022	1-162-306-11	CERAMIC 0.01uF 20% 16V (RXD10AV:US,CND)				< GROUND PLATE >	
C1023	1-162-306-11	CERAMIC 0.01uF 20% 16V (RXD10AV:AEP,UK,G,CIS)		* EP1001	1-537-738-21	TERMINAL, EARTH (RXD10AV:AEP,UK,G,CIS)	
C1051	1-126-963-11	ELECT 4.7uF 20% 50V (GRX90AV/RXD10AV:AEP,UK,G,CIS)				< IC >	
C1051	1-128-582-11	ELECT 10uF 20% 100V (RXD10AV:US,CND)		IC1001	8-749-015-54	IC STK408-040E	
C1052	1-162-286-21	CERAMIC 220PF 10% 50V				< TRANSISTOR >	
C1053	1-162-282-31	CERAMIC 100PF 10% 50V		Q1001	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1054	1-104-664-11	ELECT 47uF 20% 10V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		Q1021	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C1054	1-126-967-11	ELECT 47uF 20% 50V (RXD10AV:US,CND)		Q1022	8-729-119-78	TRANSISTOR 2SC403SP-51	
C1055	1-128-560-11	ELECT 22uF 20% 100V		Q1023	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1056	1-136-165-00	FILM 0.1uF 5% 50V		Q1024	8-729-119-78	TRANSISTOR 2SC403SP-51	
C1057	1-136-495-11	FILM 0.068uF 5% 50V		Q1051	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1058	1-136-495-11	FILM 0.068uF 5% 50V		Q1081	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C1081	1-126-963-11	ELECT 4.7uF 20% 50V (GRX90AV/RXD10AV:AEP,UK,G,CIS)				< RESISTOR >	
C1081	1-128-582-11	ELECT 10uF 20% 100V (RXD10AV:US,CND)		R1001	1-249-417-11	CARBON 1K 5% 1/4W F	
				R1002	1-249-438-11	CARBON 56K 5% 1/4W	
				R1003	1-247-819-91	CARBON 330 5% 1/4W (RXD10AV:US)	
				R1003	1-247-821-91	CARBON 390 5% 1/4W F (GRX90AV)	
				R1003	1-247-823-91	CARBON 470 5% 1/4W (RXD10AV:CND,AEP,UK,G,AED,CIS)	
				R1004	1-249-438-11	CARBON 56K 5% 1/4W	
				Δ R1005	1-212-881-11	FUSIBLE 100 5% 1/4W F	

3CH AMP

AUDIO

Ref. No.	Part No.	Description			Remark
△ R1006	1-217-151-00	METAL	0.22	10%	2W
R1007	1-249-417-11	CARBON	1K	5%	1/4W F
R1008	1-249-431-11	CARBON	15K	5%	1/4W
R1009	1-249-441-11	CARBON	100K	5%	1/4W
R1010	1-260-076-11	CARBON	10	5%	1/2W
R1020	1-247-863-91	CARBON	22K	5%	1/4W
R1021	1-249-435-11	CARBON	33K	5%	1/4W
R1022	1-247-863-91	CARBON	22K	5%	1/4W
R1023	1-249-439-11	CARBON	68K	5%	1/4W
R1024	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1025	1-247-863-91	CARBON	22K	5%	1/4W
R1026	1-249-429-11	CARBON	10K	5%	1/4W
R1027	1-249-441-11	CARBON	100K	5%	1/4W F
△ R1028	1-202-972-61	FUSIBLE	1	5%	1/4W F
R1029	1-249-441-11	CARBON	100K	5%	1/4W
R1030	1-249-441-11	CARBON	100K	5%	1/4W
R1031	1-249-437-11	CARBON	47K	5%	1/4W
R1051	1-249-417-11	CARBON	1K	5%	1/4W F
R1052	1-249-438-11	CARBON	56K	5%	1/4W
R1053	1-247-819-91	CARBON	330	5%	1/4W
					(RXD10AV:US)
R1053	1-247-821-91	CARBON	390	5%	1/4W F
					(GRX90AV)
R1053	1-247-823-91	CARBON	470	5%	1/4W
					(RXD10AV:CND,AEP,UK,G,AED,CIS)
R1054	1-249-438-11	CARBON	56K	5%	1/4W
△ R1055	1-212-881-11	FUSIBLE	100	5%	1/4W F
△ R1056	1-217-151-00	METAL	0.22	10%	2W
R1057	1-249-417-11	CARBON	1K	5%	1/4W F
R1058	1-249-431-11	CARBON	15K	5%	1/4W
R1059	1-249-441-11	CARBON	100K	5%	1/4W
R1060	1-260-076-11	CARBON	10	5%	1/2W
R1081	1-249-417-11	CARBON	1K	5%	1/4W F
R1082	1-249-438-11	CARBON	56K	5%	1/4W
R1083	1-247-822-91	CARBON	430	5%	1/4W
					(RXD10AV:US)
R1083	1-247-824-91	CARBON	510	5%	1/4W F
					(GRX90AV)
R1083	1-247-826-91	CARBON	620	5%	1/4W
					(RXD10AV:CND,AEP,UK,G,AED,CIS)
R1084	1-249-438-11	CARBON	56K	5%	1/4W
△ R1085	1-217-151-00	METAL	0.22	10%	2W
R1086	1-249-417-11	CARBON	1K	5%	1/4W F
R1087	1-249-431-11	CARBON	15K	5%	1/4W
R1088	1-249-441-11	CARBON	100K	5%	1/4W
R1089	1-260-076-11	CARBON	10	5%	1/2W
< THERMISTOR >					
TH1021	1-807-796-11	THERMISTOR			

* A-2007-731-A AUDIO BOARD, COMPLETE

< CAPACITOR >

C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V

Ref. No.	Part No.	Description			Remark
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-104-396-11	ELECT	10uF	20%	16V
C612	1-104-396-11	ELECT	10uF	20%	16V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
< CONNECTOR >					
CN601	1-695-338-11	PIN, CONNECTOR (PC BOARD) 15P			
< IC >					
IC601	8-759-111-44	IC UPC4570C-1			
IC602	8-759-143-54	IC UPC1330HA			
IC611	8-759-111-44	IC UPC4570C-1			
< COIL >					
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		
L601	1-414-193-41	INDUCTOR	220uH		
L602	1-414-193-41	INDUCTOR	220uH		
< TRANSISTOR >					
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q623	8-729-801-93	TRANSISTOR 2SD1387			
< RESISTOR >					
R301	1-247-881-00	CARBON	120K	5%	1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

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Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R302	1-249-409-11	CARBON	220	5%	1/4W	F	C113	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R303	1-249-433-11	CARBON	22K	5%	1/4W		C114	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R304	1-247-889-00	CARBON	270K	5%	1/4W		C115	1-126-607-11	ELECT CHIP	47uF	20%		4V
R305	1-247-858-11	CARBON	13K	5%	1/4W		C116	1-126-607-11	ELECT CHIP	47uF	20%		4V
R311	1-247-881-00	CARBON	120K	5%	1/4W		C117	1-126-209-11	ELECT CHIP	100uF	20%		4V
R312	1-247-807-31	CARBON	100	5%	1/4W		C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V
R314	1-247-882-11	CARBON	130K	5%	1/4W		C119	1-163-235-11	CERAMIC CHIP	22PF	5%		50V
R315	1-247-850-11	CARBON	6.2K	5%	1/4W		C121	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R331	1-249-430-11	CARBON	12K	5%	1/4W		C122	1-126-206-11	ELECT CHIP	100uF	20%		6.3V
R401	1-247-881-00	CARBON	120K	5%	1/4W		C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%		50V
R402	1-249-409-11	CARBON	220	5%	1/4W	F	C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%		16V
R403	1-249-433-11	CARBON	22K	5%	1/4W		C125	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R404	1-247-889-00	CARBON	270K	5%	1/4W		C126	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R405	1-247-858-11	CARBON	13K	5%	1/4W		C127	1-128-065-11	ELECT CHIP	68uF	20%		10V
R411	1-247-881-00	CARBON	120K	5%	1/4W		C128	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R412	1-247-807-31	CARBON	100	5%	1/4W		C129	1-163-031-11	CERAMIC CHIP	0.01uF			50V
R414	1-247-882-11	CARBON	130K	5%	1/4W		C130	1-164-346-11	CERAMIC CHIP	1uF			16V
R415	1-247-850-11	CARBON	6.2K	5%	1/4W		C131	1-124-779-00	ELECT CHIP	10uF	20%		16V
R431	1-249-430-11	CARBON	12K	5%	1/4W		C133	1-164-346-11	CERAMIC CHIP	1uF			16V
R601	1-249-409-11	CARBON	220	5%	1/4W	F	C140	1-164-346-11	CERAMIC CHIP	1uF			16V
R602	1-249-409-11	CARBON	220	5%	1/4W	F	C141	1-164-346-11	CERAMIC CHIP	1uF			16V
R608	1-249-409-11	CARBON	220	5%	1/4W	F	C143	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R609	1-249-433-11	CARBON	22K	5%	1/4W		C151	1-163-235-11	CERAMIC CHIP	22PF	5%		50V
R611	1-249-409-11	CARBON	220	5%	1/4W	F	C153	1-163-038-91	CERAMIC CHIP	0.1uF			25V
R612	1-249-409-11	CARBON	220	5%	1/4W	F	C154	1-110-501-11	CERAMIC CHIP	0.33uF	10%		16V
△ R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F	C156	1-163-235-11	CERAMIC CHIP	22PF	5%		50V
△ R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W	F	C157	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V
R623	1-249-432-11	CARBON	18K	5%	1/4W		C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%		50V
R624	1-249-432-11	CARBON	18K	5%	1/4W		C161	1-126-206-11	ELECT CHIP	100uF	20%		6.3V
R625	1-249-429-11	CARBON	10K	5%	1/4W		C162	1-126-205-11	ELECT CHIP	47uF	20%		6.3V
< VARIABLE RESISTOR >							C163	1-126-206-11	ELECT CHIP	100uF	20%		6.3V
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K					C165	1-163-038-91	CERAMIC CHIP	0.1uF			25V
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K					C167	1-163-235-11	CERAMIC CHIP	22PF	5%		50V
RV341	1-241-768-11	RES, ADJ, CARBON 220K					C168	1-163-235-11	CERAMIC CHIP	22PF	5%		50V
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K					C171	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K					C172	1-163-123-00	CERAMIC CHIP	180PF	5%		50V
RV441	1-241-768-11	RES, ADJ, CARBON 220K					C181	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V
< TRANSFORMER >							C182	1-163-123-00	CERAMIC CHIP	180PF	5%		50V
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION					< CONNECTOR >						
*****							CN101	1-778-874-11	CONNECTOR,FFC(LIF(NON-ZIF))19P				
*****							CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P				
*****							< FERRITE BEAD >						
*	A-4724-486-A	BD BOARD, COMPLETE					FB101	1-500-445-21	FERRITE 0UH				
*****							FB103	1-500-445-21	FERRITE 0UH				
< CAPACITOR >							< IC >						
C101	1-163-005-11	CERAMIC CHIP	470PF	10%		50V	IC101	8-752-386-85	IC CXD2587Q				
C102	1-164-004-11	CERAMIC CHIP	0.1uF	10%		25V	IC102	8-759-549-28	IC BA5974FP-E				
C103	1-163-005-11	CERAMIC CHIP	470PF	10%		50V	IC103	8-752-085-51	IC CXA2568M-T				
C104	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V	< TRANSISTOR >						
C108	1-164-004-11	CERAMIC CHIP	0.1uF	10%		25V	Q101	8-729-010-08	TRANSISTOR MSB710-R				
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%		50V							
C110	1-164-182-11	CERAMIC CHIP	0.0033uF	10%		50V							
C111	1-163-251-11	CERAMIC CHIP	100PF	5%		50V							
C112	1-163-038-91	CERAMIC CHIP	0.1uF			25V							

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BD	CD SW	CONNECTOR
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Ref. No.	Part No.	Description	Remark		
< RESISTOR >					
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W
R106	1-216-049-91	RES,CHIP	1K	5%	1/10W
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W
R110	1-216-025-91	RES,CHIP	100	5%	1/10W
R111	1-216-121-91	RES,CHIP	1M	5%	1/10W
R113	1-216-121-91	RES,CHIP	1M	5%	1/10W
R114	1-216-073-00	METAL CHIP	10K	5%	1/10W
R116	1-216-001-00	METAL CHIP	10	5%	1/10W
R117	1-216-049-91	RES,CHIP	1K	5%	1/10W
R119	1-216-041-00	METAL CHIP	470	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W
R131	1-216-033-00	METAL CHIP	220	5%	1/10W
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R147	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-001-00	METAL CHIP	10	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R171	1-216-078-00	RES,CHIP	16K	5%	1/10W
R172	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-077-00	METAL CHIP	15K	5%	1/10W
R181	1-216-078-00	RES,CHIP	16K	5%	1/10W
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W
R183	1-216-077-00	METAL CHIP	15K	5%	1/10W
< NETWORK >					
RN101	1-233-576-11	RES, CHIP NETWORK 100			
RN102	1-233-576-11	RES, CHIP NETWORK 100			
< SWITCH >					
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN SW)			
< VIBRATOR >					
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			

A-4417-826-A		CD SW BOARD, COMPLETE	*****		
< DIODE >					
D751	8-719-056-13	DIODE	SML79423C-TP15 (DISC 1)		
D752	8-719-056-13	DIODE	SML79423C-TP15 (DISC 2)		
D753	8-719-056-13	DIODE	SML79423C-TP15 (DISC 3)		
D754	8-719-063-93	DIODE	SLR325VC-N-T32 (1/4W)		

Ref. No.	Part No.	Description	Remark		
< RESISTOR >					
R751	1-249-417-11	CARBON	1K	5%	1/4W F
R752	1-249-418-11	CARBON	1.2K	5%	1/4W F
R753	1-249-420-11	CARBON	1.8K	5%	1/4W F
R754	1-249-422-11	CARBON	2.7K	5%	1/4W F
R755	1-247-843-11	CARBON	3.3K	5%	1/4W
R756	1-249-425-11	CARBON	4.7K	5%	1/4W F
R757	1-249-427-11	CARBON	6.8K	5%	1/4W F
R758	1-247-804-11	CARBON	75	5%	1/4W
R759	1-249-407-11	CARBON	150	5%	1/4W F
R760	1-247-804-11	CARBON	75	5%	1/4W
R761	1-249-407-11	CARBON	150	5%	1/4W F
R762	1-247-804-11	CARBON	75	5%	1/4W
R763	1-249-407-11	CARBON	150	5%	1/4W F
R764	1-249-414-11	CARBON	560	5%	1/4W F
< SWITCH >					
S751	1-762-875-21	SWITCH, KEYBOARD (I/⏏)			
S752	1-762-875-21	SWITCH, KEYBOARD (DEMO (STANDBY))			
S753	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
S754	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S755	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S756	1-762-875-21	SWITCH, KEYBOARD (EXCHANGE DISC SKIP)			
S757	1-762-875-21	SWITCH, KEYBOARD (⏏)			

*	1-658-575-11	CONNECTOR BOARD *****			
< CONNECTOR >					
* CN701	1-568-946-11	PIN, CONNECTOR 8P			
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P			
< TRANSISTOR >					
Q701	8-729-900-80	TRANSISTOR DTC114ES			
< RESISTOR >					
R703	1-249-435-11	CARBON	33K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W
R705	1-249-417-11	CARBON	1K	5%	1/4W F

FRONT AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4417-769-A	FRONT AMP BOARD, COMPLETE (US) *****		C861	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
	A-4417-783-A	FRONT AMP BOARD, COMPLETE (AEP,UK,G,CIS) *****		C862	1-161-494-00	CERAMIC 0.022uF 25V (RXD10AV:AEP,UK,G,CIS)	
	A-4426-201-A	FRONT AMP BOARD, COMPLETE ***** (E2,E3,EA,SP,AR,MX,AUS)		C871	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
	A-4417-878-A	FRONT AMP BOARD, COMPLETE (CND) *****		C872	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
	A-4417-936-A	FRONT AMP BOARD, COMPLETE (TH) *****		C873	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
	< CAPACITOR >			C874	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
C801	1-126-963-11	ELECT 4.7uF 20% 50V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		C875	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
C801	1-128-582-11	ELECT 10uF 20% 100V (RXD10AV:US,CND)		C876	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)	
C802	1-162-286-21	CERAMIC 220PF 10% 50V		C877	1-161-494-00	CERAMIC 0.022uF 25V (RXD10AV:AEP,UK,G,CIS)	
C803	1-162-282-31	CERAMIC 100PF 10% 50V		C878	1-161-494-00	CERAMIC 0.022uF 25V (RXD10AV:AEP,UK,G,CIS)	
C804	1-104-664-11	ELECT 47uF 20% 10V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		C879	1-161-494-00	CERAMIC 0.022uF 25V (RXD10AV:AEP,UK,G,CIS)	
C804	1-126-967-11	ELECT 47uF 20% 50V (RXD10AV:US,CND)		C880	1-126-963-11	ELECT 4.7uF 20% 50V	
C806	1-128-560-11	ELECT 22uF 20% 100V		C881	1-127-751-11	ELECT 3300uF 20% 50V (RXD10AV)	
C807	1-130-777-00	FILM 0.1uF 10% 100V		C881	1-127-811-11	ELECT 3300uF 20% 50V (GRX90AV)	
C808	1-136-495-11	FILM 0.068uF 5% 50V		C882	1-127-751-11	ELECT 3300uF 20% 50V (RXD10AV)	
C809	1-136-495-11	FILM 0.068uF 5% 50V		C882	1-127-811-11	ELECT 3300uF 20% 50V (GRX90AV)	
C810	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)		C883	1-127-752-11	ELECT 3300uF 20% 63V (RXD10AV)	
C811	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)		C883	1-127-813-11	ELECT 3300uF 20% 71V (GRX90AV)	
C812	1-161-494-00	CERAMIC 0.022uF 25V (RXD10AV:AEP,UK,G,CIS)		C884	1-127-752-11	ELECT 3300uF 20% 63V (RXD10AV)	
C821	1-128-562-11	ELECT 42uF 20% 100V		C884	1-127-813-11	ELECT 3300uF 20% 71V (GRX90AV)	
C822	1-162-306-11	CERAMIC 0.01uF 20% 16V		C885	1-136-165-00	FILM 0.1uF 5% 50V	
C823	1-162-306-11	CERAMIC 0.01uF 20% 16V (RXD10AV:AEP,UK,G,CIS)		C886	1-136-165-00	FILM 0.1uF 5% 50V	
C825	1-104-665-11	ELECT 100uF 20% 10V		C887	1-130-777-00	FILM 0.1uF 10% 100V	
C826	1-126-961-11	ELECT 2.2uF 20% 50V		C888	1-130-777-00	FILM 0.1uF 10% 100V	
C827	1-104-665-11	ELECT 100uF 20% 10V		C889	1-164-159-21	CERAMIC 0.1uF 50V	
C831	1-126-968-11	ELECT 100uF 20% 50V		C890	1-164-159-21	CERAMIC 0.1uF 50V	
C851	1-126-963-11	ELECT 4.7uF 20% 50V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		< CONNECTOR >			
C851	1-128-582-11	ELECT 10uF 20% 100V (RXD10AV:US,CND)		CN801	1-770-722-11	CONNECTOR, BOARD TO BOARD 6P	
C852	1-162-286-21	CERAMIC 220PF 10% 50V		CN802	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P	
C853	1-162-282-31	CERAMIC 100PF 10% 50V		< DIODE >			
C854	1-104-664-11	ELECT 47uF 20% 10V (GRX90AV/RXD10AV:AEP,UK,G,CIS)		D801	8-719-110-09	DIODE RD8.2ES-B3	
C854	1-126-967-11	ELECT 47uF 20% 50V (RXD10AV:US,CND)		D802	8-719-991-33	DIODE 1SS133T-77	
C856	1-128-560-11	ELECT 22uF 20% 100V		D821	8-719-991-33	DIODE 1SS133T-77	
C857	1-130-777-00	FILM 0.1uF 10% 100V		D831	8-719-991-33	DIODE 1SS133T-77	
C858	1-136-495-11	FILM 0.068uF 5% 50V		D851	8-719-110-09	DIODE RD8.2ES-B3	
C859	1-136-495-11	FILM 0.068uF 5% 50V		D852	8-719-991-33	DIODE 1SS133T-77	
C860	1-136-165-00	FILM 0.1uF 5% 50V (RXD10AV:AEP,UK,G,CIS)		D871	8-719-991-33	DIODE 1SS133T-77	
				D881	8-719-510-68	DIODE D5SBA20F01	
				D882	8-719-510-68	DIODE D5SBA20F01	

FRONT AMP

Ref. No.	Part No.	Description	Remark
D883	8-719-991-33	DIODE 1SS133T-77	
D884	8-719-991-33	DIODE 1SS133T-77	
D885	8-719-991-33	DIODE 1SS133T-77	
< GROUND PLATE >			
* EP801	1-537-738-21	TERMINAL, EARTH (RXD10AV:AEP,UK,G,CIS)	
EP802	1-537-738-21	TERMINAL, EARTH	
< IC >			
IC801	8-749-015-32	IC STK411-290E (RXD10AV:CND,AEP,UK,G,CIS)	
IC801	8-749-016-09	IC STK411-210M (RXD10AV:US)	
IC801	8-749-016-11	IC STK411-230M (GRX90AV)	
< COIL >			
L801	1-420-872-00	COIL, AIR-CORE (RXD10AV:AEP,UK,G,CIS)	
L851	1-420-872-00	COIL, AIR-CORE (RXD10AV:AEP,UK,G,CIS)	
L871	1-420-872-00	COIL, AIR-CORE (RXD10AV:AEP,UK,G,CIS)	
L872	1-420-872-00	COIL, AIR-CORE (RXD10AV:AEP,UK,G,CIS)	
L873	1-420-872-00	COIL, AIR-CORE (RXD10AV:AEP,UK,G,CIS)	
< TRANSISTOR >			
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q821	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q822	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q825	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q826	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q827	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q828	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q829	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q830	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q831	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q832	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q881	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q882	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q883	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q884	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q885	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q886	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
< RESISTOR >			
R801	1-249-417-11	CARBON 1K 5% 1/4W F	
R802	1-249-438-11	CARBON 56K 5% 1/4W	
R803	1-247-828-11	CARBON 750 5% 1/4W F	
R803	1-247-829-11	CARBON 820 5% 1/4W F	
R803	1-247-831-91	CARBON 1K 5% 1/4W F	
R804	1-249-438-11	CARBON 56K 5% 1/4W	
△ R805	1-212-881-11	FUSIBLE 100 5% 1/4W F	
R806	1-260-335-11	CARBON 3.9K 5% 1/2W	
△ R807	1-217-151-00	METAL 0.22 10% 2W	
△ R807	1-217-156-00	METAL 0.22 10% 5W	
R808	1-249-417-11	CARBON 1K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark
R809	1-249-431-11	CARBON 15K 5% 1/4W	
R810	1-249-441-11	CARBON 100K 5% 1/4W	
R811	1-260-076-11	CARBON 10 5% 1/2W	
R812	1-260-076-11	CARBON 10 5% 1/2W	
(RXD10AV:AEP,UK,G,CIS)			
R813	1-260-076-11	CARBON 10 5% 1/2W	
(RXD10AV:AEP,UK,G,CIS)			
R814	1-249-437-11	CARBON 47K 5% 1/4W	
R821	1-249-435-11	CARBON 33K 5% 1/4W	
R822	1-247-863-91	CARBON 22K 5% 1/4W	
R823	1-249-439-11	CARBON 68K 5% 1/4W	
R824	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R825	1-247-863-91	CARBON 22K 5% 1/4W	
R826	1-249-429-11	CARBON 10K 5% 1/4W	
R827	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R828	1-202-972-61	FUSIBLE 1 5% 1/4W F	
R832	1-249-431-11	CARBON 15K 5% 1/4W	
R833	1-249-435-11	CARBON 33K 5% 1/4W	
R835	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R836	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R837	1-247-863-91	CARBON 22K 5% 1/4W	
R838	1-249-435-11	CARBON 33K 5% 1/4W	
R839	1-249-429-11	CARBON 10K 5% 1/4W	
R840	1-249-429-11	CARBON 10K 5% 1/4W	
R841	1-249-437-11	CARBON 47K 5% 1/4W	
R842	1-249-438-11	CARBON 56K 5% 1/4W	
R843	1-249-439-11	CARBON 68K 5% 1/4W	
R844	1-249-438-11	CARBON 56K 5% 1/4W	
R845	1-249-437-11	CARBON 47K 5% 1/4W	
R851	1-249-417-11	CARBON 1K 5% 1/4W F	
R852	1-249-438-11	CARBON 56K 5% 1/4W	
R853	1-247-828-11	CARBON 750 5% 1/4W F	
(RXD10AV:US)			
R853	1-247-829-11	CARBON 820 5% 1/4W F	
(GRX90AV)			
R853	1-247-831-91	CARBON 1K 5% 1/4W F	
(RXD10AV:CND,AEP,UK,G,CIS)			
R854	1-249-438-11	CARBON 56K 5% 1/4W	
△ R855	1-212-881-11	FUSIBLE 100 5% 1/4W F	
R856	1-260-335-11	CARBON 3.9K 5% 1/2W	
△ R857	1-217-151-00	METAL 0.22 10% 2W	
(RXD10AV:CND,AEP,UK,G,CIS)			
△ R857	1-217-156-00	METAL 0.22 10% 5W	
(GRX90AV/RXD10AV:US)			
R858	1-249-417-11	CARBON 1K 5% 1/4W F	
R859	1-249-431-11	CARBON 15K 5% 1/4W	
R860	1-249-441-11	CARBON 100K 5% 1/4W	
R861	1-260-076-11	CARBON 10 5% 1/2W	
R862	1-260-076-11	CARBON 10 5% 1/2W	
(RXD10AV:AEP,UK,G,CIS)			
R863	1-260-076-11	CARBON 10 5% 1/2W	
(RXD10AV:AEP,UK,G,CIS)			
R864	1-249-437-11	CARBON 47K 5% 1/4W	
R871	1-249-437-11	CARBON 47K 5% 1/4W	
R872	1-249-437-11	CARBON 47K 5% 1/4W	
R873	1-249-437-11	CARBON 47K 5% 1/4W	
R874	1-260-076-11	CARBON 10 5% 1/2W	
(RXD10AV:AEP,UK,G,CIS)			

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Ref. No.	Part No.	Description	Remark		
R875	1-260-076-11	CARBON	10	5%	1/2W (RXD10AV:AEP,UK,G,CIS)
R876	1-260-076-11	CARBON	10	5%	1/2W (RXD10AV:AEP,UK,G,CIS)
R877	1-260-076-11	CARBON	10	5%	1/2W (RXD10AV:AEP,UK,G,CIS)
R878	1-260-076-11	CARBON	10	5%	1/2W (RXD10AV:AEP,UK,G,CIS)
R879	1-260-076-11	CARBON	10	5%	1/2W (RXD10AV:AEP,UK,G,CIS)
R881	1-249-429-11	CARBON	10K	5%	1/4W
R882	1-249-437-11	CARBON	47K	5%	1/4W
R883	1-249-429-11	CARBON	10K	5%	1/4W
R884	1-249-441-11	CARBON	100K	5%	1/4W
△ R885	1-215-456-00	METAL OXIDE	820	5%	2W F (RXD10AV:CND)
△ R885	1-215-892-11	METAL OXIDE	1K	5%	2W F (RXD10AV:AEP,UK,G,CIS)
△ R885	1-216-457-00	METAL OXIDE	1.2K	5%	2W F (GRX90AV/RXD10AV:US)
R886	1-249-429-11	CARBON	10K	5%	1/4W
R887	1-249-437-11	CARBON	47K	5%	1/4W
R888	1-249-429-11	CARBON	10K	5%	1/4W
R889	1-249-441-11	CARBON	100K	5%	1/4W
△ R890	1-215-456-00	METAL OXIDE	820	5%	2W F (RXD10AV:CND)
△ R890	1-215-892-11	METAL OXIDE	1K	5%	2W F (RXD10AV:AEP,UK,G,CIS)
△ R890	1-216-457-00	METAL OXIDE	1.2K	5%	2W F (GRX90AV/RXD10AV:US)
R891	1-249-429-11	CARBON	10K	5%	1/4W
R892	1-249-437-11	CARBON	47K	5%	1/4W
R893	1-249-429-11	CARBON	10K	5%	1/4W
R894	1-249-441-11	CARBON	100K	5%	1/4W
△ R895	1-215-456-00	METAL OXIDE	820	5%	2W F (RXD10AV:CND)
△ R895	1-215-892-11	METAL OXIDE	1K	5%	2W F (RXD10AV:AEP,UK,G,CIS)
△ R895	1-216-457-00	METAL OXIDE	1.2K	5%	2W F (RXD10AV:US)
R896	1-247-863-91	CARBON	22K	5%	1/4W
R897	1-247-863-91	CARBON	22K	5%	1/4W
< RELAY >					
RY881	1-515-920-11	RELAY (RXD10AV:CND,AEP,UK,G,CIS)			
RY881	1-755-168-11	RELAY (GRX90AV/RXD10AV:US)			
RY882	1-515-920-11	RELAY (24V)			
RY883	1-515-920-11	RELAY (24V)			
< TERMINAL >					
TM801	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (GRX90AV/RXD10AV:US,CND)			
TM801	1-537-842-11	TERMINAL BOARD (RXD10AV:AEP,UK,G,CIS)			
TM802	1-537-510-11	TERMINAL BOARD (SPEAKER) (6P) (GRX90AV/RXD10AV:US,CND)			
TM802	1-537-510-31	TERMINAL BOARD (SPEAKER) (6P) (RXD10AV:AEP,UK,G,CIS)			

Ref. No.	Part No.	Description	Remark		
*	A-2007-732-A	LEAF SW BOARD, COMPLETE			

		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-568-860-11	SOCKET, CONNECTOR 17P			
CN1001	1-784-459-11	CONNECTOR, FFC/FPC 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS119			
D1002	8-719-911-19	DIODE 1SS119			
		< HOLDER >			
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P			
		< IC >			
IC1001	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR DTA144ESA			
		< RESISTOR >			
R907	1-247-879-11	CARBON	100K	5%	1/4W
R1001	1-249-409-11	CARBON	220	5%	1/4W F
R1002	1-249-409-11	CARBON	220	5%	1/4W F
R1003	1-249-414-11	CARBON	560	5%	1/4W F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W
R1007	1-247-856-00	CARBON	11K	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W F
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY)(A PLAY)			
S1002	1-570-953-11	SWITCH, PUSH (1 KEY)(B PLAY)			
S1003	1-771-333-11	SWITCH, LEAF (A HALF)			
S1004	1-771-205-11	SWITCH, LEAF (A 120/70)			
S1005	1-771-205-11	SWITCH, LEAF (REC A)			
S1006	1-771-333-11	SWITCH, LEAF (B HALF)			
S1008	1-771-205-11	SWITCH, LEAF (B 120/70)			
S1009	1-771-205-11	SWITCH, LEAF (REC B)			

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MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
A-4417-758-A	MAIN BOARD, COMPLETE (E2,AR,MX,TH)	*****				C169	1-130-479-00	MYLAR	0.0047uF	5%	50V
						C170	1-130-477-00	MYLAR	0.0033uF	5%	50V
A-4417-760-A	MAIN BOARD, COMPLETE (US)	*****				C171	1-126-964-11	ELECT	10uF	20%	50V
						C172	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
A-4417-779-A	MAIN BOARD, COMPLETE (AEP,UK,G,CIS)	*****				C173	1-136-169-00	FILM	0.22uF	5%	50V
						C174	1-136-169-00	FILM	0.22uF	5%	50V
A-4417-788-A	MAIN BOARD, COMPLETE (E3,SP)	*****				C175	1-126-964-11	ELECT	10uF	20%	50V
						C191	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
A-4417-876-A	MAIN BOARD, COMPLETE (CND)	*****				C201	1-126-964-11	ELECT	10uF	20%	50V
A-4417-886-A	MAIN BOARD, COMPLETE (AUS)	*****				C202	1-126-964-11	ELECT	10uF	20%	50V
						C204	1-126-959-11	ELECT	0.47uF	20%	50V
A-4417-906-A	MAIN BOARD, COMPLETE (EA)	*****				C207	1-136-165-00	FILM	0.1uF	5%	50V
						C208	1-136-165-00	FILM	0.1uF	5%	50V
7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S					C210	1-126-959-11	ELECT	0.47uF	20%	50V
	< CAPACITOR >										
C101	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C212	1-126-959-11	ELECT	0.47uF	20%	50V
C102	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C215	1-126-959-11	ELECT	0.47uF	20%	50V
C103	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C217	1-126-959-11	ELECT	0.47uF	20%	50V
C104	1-163-038-91	CERAMIC CHIP	0.1uF		25V	C218	1-136-165-00	FILM	0.1uF	5%	50V
C111	1-137-195-11	FILM	0.56uF	5%	50V	C219	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C112	1-136-158-00	FILM	0.027uF	5%	50V						
C113	1-136-167-00	FILM	0.15uF	5%	50V	C221	1-126-964-11	ELECT	10uF	20%	50V
C114	1-130-480-00	MYLAR	0.0056uF	5%	50V	C224	1-163-009-91	CERAMIC CHIP	0.001uF		
C115	1-136-159-00	FILM	0.033uF	5%	50V	C225	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C116	1-130-473-00	MYLAR	0.0015uF	5%	50V	C226	1-126-960-11	ELECT	1uF	20%	50V
C117	1-136-153-00	FILM	0.01uF	5%	50V	C228	1-130-479-00	MYLAR	0.0047uF	5%	50V
C118	1-110-341-11	MYLAR	330PF	5%	50V						
C119	1-130-479-00	MYLAR	0.0047uF	5%	50V	C229	1-130-471-00	MYLAR	0.001uF	5%	50V
C120	1-130-477-00	MYLAR	0.0033uF	5%	50V	C231	1-136-165-00	FILM	0.1uF	5%	50V
C121	1-126-964-11	ELECT	10uF	20%	50V	C233	1-136-169-00	FILM	0.22uF	5%	50V
C122	1-163-006-11	CERAMIC CHIP	560PF	10%	50V	C234	1-136-169-00	FILM	0.22uF	5%	50V
C123	1-136-169-00	FILM	0.22uF	5%	50V	C235	1-136-165-00	FILM	0.1uF	5%	50V
C124	1-136-169-00	FILM	0.22uF	5%	50V						
C125	1-126-964-11	ELECT	10uF	20%	50V	C237	1-130-479-00	MYLAR	0.0047uF	5%	50V
C127	1-136-153-00	FILM	0.01uF	5%	50V	C238	1-130-471-00	MYLAR	0.001uF	5%	50V
C128	1-136-495-11	FILM	0.068uF	5%	50V	C240	1-126-960-11	ELECT	1uF	20%	50V
C131	1-104-664-11	ELECT	47uF	20%	16V	C243	1-130-480-00	MYLAR	0.0056uF	5%	50V
C132	1-104-664-11	ELECT	47uF	20%	16V	C244	1-136-161-00	FILM	0.047uF	5%	50V
C134	1-126-964-11	ELECT	10uF	20%	50V						
C141	1-126-959-11	ELECT	0.47uF	20%	50V	C245	1-136-175-00	FILM	0.68uF	5%	50V
C151	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C246	1-136-169-00	FILM	0.22uF	5%	50V
C152	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C247	1-136-169-00	FILM	0.22uF	5%	50V
C153	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C248	1-126-963-11	ELECT	4.7uF	20%	50V
C161	1-137-195-11	FILM	0.56uF	5%	50V	C249	1-126-963-11	ELECT	4.7uF	20%	50V
C162	1-136-158-00	FILM	0.027uF	5%	50V						
C163	1-136-167-00	FILM	0.15uF	5%	50V	C250	1-136-169-00	FILM	0.22uF	5%	50V
C164	1-130-480-00	MYLAR	0.0056uF	5%	50V	C251	1-136-169-00	FILM	0.22uF	5%	50V
C165	1-136-159-00	FILM	0.033uF	5%	50V	C252	1-136-165-00	FILM	0.1uF	5%	50V
C166	1-130-473-00	MYLAR	0.0015uF	5%	50V	C253	1-136-161-00	FILM	0.047uF	5%	50V
C167	1-136-153-00	FILM	0.01uF	5%	50V	C254	1-136-161-00	FILM	0.047uF	5%	50V
C168	1-110-341-11	MYLAR	330PF	5%	50V						
						C255	1-136-165-00	FILM	0.1uF	5%	50V
						C256	1-136-165-00	FILM	0.1uF	5%	50V
						C257	1-136-157-00	FILM	0.022uF	5%	50V
						C258	1-136-157-00	FILM	0.022uF	5%	50V
						C259	1-136-165-00	FILM	0.1uF	5%	50V
						C260	1-130-469-00	MYLAR	680PF	5%	50V
						C261	1-136-153-00	FILM	0.01uF	5%	50V
						C262	1-130-469-00	MYLAR	680PF	5%	50V
						C263	1-136-153-00	FILM	0.01uF	5%	50V
						C264	1-136-153-00	FILM	0.01uF	5%	50V
						C265	1-136-153-00	FILM	0.01uF	5%	50V
						C266	1-104-664-11	ELECT	47uF	20%	16V
						C267	1-130-481-00	MYLAR	0.0068uF	5%	50V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C268	1-126-963-11	ELECT	4.7uF	20%	50V	C416	1-126-916-11	ELECT	1000uF	20%	6.3V
C269	1-126-934-11	ELECT	220uF	20%	16V	C421	1-107-717-11	ELECT	47uF	20%	50V
C270	1-126-934-11	ELECT	220uF	20%	16V	C423	1-104-665-11	ELECT	100uF	20%	10V
C272	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	C431	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C273	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	C432	1-126-963-11	ELECT	4.7uF	20%	50V
C274	1-126-964-11	ELECT	10uF	20%	50V	C451	1-126-961-11	ELECT	2.2uF	20%	50V
C275	1-126-964-11	ELECT	10uF	20%	50V	C453	1-107-721-11	ELECT	4.7uF	20%	100V
C276	1-126-964-11	ELECT	10uF	20%	50V	C501	1-126-964-11	ELECT	10uF	20%	50V
C277	1-126-964-11	ELECT	10uF	20%	50V	C502	1-136-165-00	FILM	0.1uF	5%	50V
C278	1-126-964-11	ELECT	10uF	20%	50V	C503	1-136-165-00	FILM	0.1uF	5%	50V
C279	1-126-964-11	ELECT	10uF	20%	50V	C504	1-126-916-11	ELECT	1000uF	20%	6.3V
C280	1-126-964-11	ELECT	10uF	20%	50V	C506	1-107-713-11	ELECT	4.7uF	20%	50V
C281	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C510	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C282	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C511	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C283	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C512	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C284	1-126-959-11	ELECT	0.47uF	20%	50V	C516	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C285	1-126-959-11	ELECT	0.47uF	20%	50V	C517	1-104-665-11	ELECT	100uF	20%	10V
C291	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C532	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C292	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C549	1-126-964-11	ELECT	10uF	20%	50V
C293	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C562	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C294	1-126-959-11	ELECT	0.47uF	20%	50V	C563	1-104-665-11	ELECT	100uF	20%	10V
C301	1-126-960-11	ELECT	1uF	20%	50V	C598	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V	C599	1-104-665-11	ELECT	100uF	20%	10V
C303	1-136-165-00	FILM	0.1uF	5%	50V	C901	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V	C902	1-126-937-11	ELECT	4700uF	20%	16V
C305	1-126-964-11	ELECT	10uF	20%	50V	C903	1-126-934-11	ELECT	220uF	20%	16V
C306	1-126-960-11	ELECT	1uF	20%	50V	C904	1-126-924-11	ELECT	330uF	20%	10V
C307	1-126-959-11	ELECT	0.47uF	20%	50V	C905	1-104-664-11	ELECT	47uF	20%	16V
C308	1-126-964-11	ELECT	10uF	20%	50V	C906	1-136-165-00	FILM	0.1uF	5%	50V
C309	1-137-194-81	FILM	0.47uF	5%	50V	C907	1-128-548-11	ELECT	4700uF	20%	25V
C310	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	C908	1-126-964-11	ELECT	10uF	20%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V	C909	1-126-916-11	ELECT	1000uF	20%	6.3V
C312	1-126-959-11	ELECT	0.47uF	20%	50V	C912	1-126-964-11	ELECT	10uF	20%	50V
C313	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C913	1-104-665-11	ELECT	100uF	20%	10V
C314	1-126-964-11	ELECT	10uF	20%	50V	C914	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V	C915	1-126-933-11	ELECT	100uF	20%	16V
C316	1-126-933-11	ELECT	100uF	20%	16V	C916	1-126-964-11	ELECT	10uF	20%	50V
C317	1-126-933-11	ELECT	100uF	20%	16V	C917	1-126-767-11	ELECT	1000uF	20%	16V
C320	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	C918	1-104-664-11	ELECT	47uF	20%	16V
C351	1-126-960-11	ELECT	1uF	20%	50V	C919	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V	C920	1-126-933-11	ELECT	100uF	20%	16V
C353	1-136-165-00	FILM	0.1uF	5%	50V	C923	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C354	1-136-165-00	FILM	0.1uF	5%	50V	C925	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C355	1-126-964-11	ELECT	10uF	20%	50V	C926	1-126-916-11	ELECT	1000uF	20%	6.3V
C356	1-126-960-11	ELECT	1uF	20%	50V						(GRX90AV)
C357	1-126-959-11	ELECT	0.47uF	20%	50V	C931	1-126-961-11	ELECT	2.2uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V	C951	1-136-165-00	FILM	0.1uF	5%	50V
C359	1-137-194-81	FILM	0.47uF	5%	50V	C952	1-126-768-11	ELECT	2200uF	20%	16V
C373	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	C953	1-126-934-11	ELECT	220uF	20%	16V
C374	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	C954	1-126-924-11	ELECT	330uF	20%	10V
C401	1-126-961-11	ELECT	2.2uF	20%	50V	C956	1-136-165-00	FILM	0.1uF	5%	50V
C403	1-107-721-11	ELECT	4.7uF	20%	100V	< CONNECTOR >					
C411	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	* CN111	1-568-862-11	SOCKET, CONNECTOR 19P			
C412	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	CN112	1-785-334-11	PIN, CONNECTOR (LIGHT ANGLE)8P			
C413	1-126-916-11	ELECT	1000uF	20%	6.3V	CN113	1-785-335-11	PIN, CONNECTOR (LIGHT ANGLE)9P			
C414	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	* CN121	1-568-832-11	SOCKET, CONNECTOR 13P			
C415	1-126-925-11	ELECT	470uF	20%	10V						(GRX90AV:E2,AR,MX,TH/RXD10AV:US,CND)

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CN121	1-568-834-11	SOCKET, CONNECTOR 15P (GRX90AV:E3,EA,SP,AUS/RXD10AV:AEP,UK,G,CIS)				< JACK >	
CN131	1-568-834-11	SOCKET, CONNECTOR 15P		J101	1-774-411-11	JACK, PIN 6P	
* CN132	1-568-836-11	SOCKET, CONNECTOR 17P		J102	1-779-599-11	JACK, PIN 6P	
* CN141	1-568-839-11	SOCKET, CONNECTOR 23P		J191	1-774-785-11	JACK, PIN 1P	
CN151	1-770-726-11	CONNECTOR, BOARD TO BOARD 6P				< COIL >	
CN152	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P		L411	1-408-619-31	INDUCTOR 220uH	
* CN171	1-564-518-11	PLUG, CONNECTOR 3P		L421	1-410-482-31	INDUCTOR 100uH	
* CN301	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P		L501	1-410-470-11	INDUCTOR 10uH	
		< DIODE >				< TRANSISTOR >	
D141	8-719-988-61	DIODE 1SS355TE-17		Q111	8-729-900-36	TRANSISTOR DTC124ES	
D371	8-719-988-61	DIODE 1SS355TE-17		Q112	8-729-119-78	TRANSISTOR 2SC403SP-51	
D372	8-719-988-61	DIODE 1SS355TE-17		Q113	8-729-119-78	TRANSISTOR 2SC403SP-51	
D373	8-719-988-61	DIODE 1SS355TE-17		Q114	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D374	8-719-988-61	DIODE 1SS355TE-17		Q161	8-729-900-36	TRANSISTOR DTC124ES	
D501	8-719-988-61	DIODE 1SS355TE-17		Q162	8-729-119-78	TRANSISTOR 2SC403SP-51	
D502	8-719-988-61	DIODE 1SS355TE-17		Q163	8-729-119-78	TRANSISTOR 2SC403SP-51	
D503	8-719-988-61	DIODE 1SS355TE-17		Q164	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D504	8-719-988-61	DIODE 1SS355TE-17		Q191	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D505	8-719-988-61	DIODE 1SS355TE-17		Q281	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D506	8-719-988-61	DIODE 1SS355TE-17		Q282	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D507	8-719-988-61	DIODE 1SS355TE-17		Q291	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D509	8-719-988-61	DIODE 1SS355TE-17		Q371	8-729-118-00	TRANSISTOR 2SB1116-L	
D510	8-719-988-61	DIODE 1SS355TE-17		Q372	8-729-900-80	TRANSISTOR DTC114ES	
D512	8-719-988-61	DIODE 1SS355TE-17		Q373	8-729-118-00	TRANSISTOR 2SB1116-L	
D901	8-719-200-82	DIODE 11ES2		Q374	8-729-900-80	TRANSISTOR DTC114ES	
D902	8-719-200-82	DIODE 11ES2		Q375	8-729-900-80	TRANSISTOR DTC114ES	
D903	8-719-200-82	DIODE 11ES2		Q376	8-729-116-59	TRANSISTOR 2SB1068TP	
D904	8-719-200-82	DIODE 11ES2		Q377	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
D905	8-719-988-61	DIODE 1SS355TE-17		Q378	8-729-422-57	TRANSISTOR UN4111	
D906	8-719-158-15	DIODE RD5.6S-B		Q379	8-729-900-80	TRANSISTOR DTC114ES	
D908	8-719-200-82	DIODE 11ES2		Q380	8-729-116-59	TRANSISTOR 2SB1068TP	
D909	8-719-200-82	DIODE 11ES2		Q381	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
D910	8-719-200-82	DIODE 11ES2		Q382	8-729-422-57	TRANSISTOR UN4111	
D911	8-719-200-82	DIODE 11ES2		Q383	8-729-900-80	TRANSISTOR DTC114ES	
D912	8-719-056-88	DIODE UDZ-TE-17-11B		Q411	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D914	8-719-988-61	DIODE 1SS355TE-17 (GRX90AV)		Q421	8-729-900-63	TRANSISTOR DTA124ES	
D915	8-719-210-33	DIODE EC10DS2 (GRX90AV)		Q431	8-729-111-29	TRANSISTOR 2SD1616A-K	
D916	8-719-210-33	DIODE EC10DS2 (GRX90AV)		Q432	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D918	8-719-210-33	DIODE EC10DS2 (GRX90AV)		Q461	8-729-141-30	TRANSISTOR 2SC3623A-LK	
D931	8-719-988-61	DIODE 1SS355TE-17		Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	
D932	8-719-988-61	DIODE 1SS355TE-17		Q502	8-729-900-63	TRANSISTOR DTA124ES	
		< IC >		Q503	8-729-900-63	TRANSISTOR DTA124ES	
IC101	8-759-571-54	IC M62493FP		Q901	8-729-209-15	TRANSISTOR 2SD2012	
IC201	8-759-571-51	IC M62464FP		Q902	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC301	8-759-495-26	IC HA12215		Q903	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC421	8-749-923-04	IC TOTX178		Q904	8-729-900-36	TRANSISTOR DTC124ES	
IC501	8-759-588-90	IC M30622MA-A08FP		Q905	8-729-900-36	TRANSISTOR DTC124ES	
IC502	8-759-635-63	IC M51943BSL		Q906	8-729-040-20	TRANSISTOR RT1P137L-TP	
IC901	8-759-231-53	IC TA7805S		Q907	8-729-900-36	TRANSISTOR DTC124ES	
IC902	8-759-604-86	IC M5F7807L		Q908	8-729-040-20	TRANSISTOR RT1P137L-TP	
IC903	8-759-604-32	IC M5F7810		Q909	8-729-900-36	TRANSISTOR DTC124ES	
IC904	8-759-604-39	IC M5F78MRL (US)		Q910	8-729-026-68	TRANSISTOR 2SD2525(TP)	
IC904	8-759-701-79	IC NJM7812FA (EXCEPT US)		Q913	8-729-040-20	TRANSISTOR RT1P137L-TP	
				Q914	8-729-900-36	TRANSISTOR DTC124ES	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q951	8-729-141-83	TRANSISTOR	2SB1094-LK			R224	1-216-049-91	RES,CHIP	1K	5%	1/10W
Q952	8-729-119-76	TRANSISTOR	2SA1175-HFE			R245	1-216-109-00	METAL CHIP	330K	5%	1/10W
Q953	8-729-119-76	TRANSISTOR	2SA1175-HFE			R260	1-216-089-91	RES,CHIP	47K	5%	1/10W
< RESISTOR >						R261	1-216-094-00	RES,CHIP	75K	5%	1/10W
R101	1-216-049-91	RES,CHIP	1K	5%	1/10W	R262	1-216-089-91	RES,CHIP	47K	5%	1/10W
R102	1-216-049-91	RES,CHIP	1K	5%	1/10W	R263	1-216-094-00	RES,CHIP	75K	5%	1/10W
R103	1-216-049-91	RES,CHIP	1K	5%	1/10W	R264	1-216-101-00	METAL CHIP	150K	5%	1/10W
R111	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R265	1-216-101-00	METAL CHIP	150K	5%	1/10W
R112	1-216-073-00	METAL CHIP	10K	5%	1/10W	R267	1-216-097-91	RES,CHIP	100K	5%	1/10W
R113	1-216-295-91	SHORT	0			R271	1-216-097-91	RES,CHIP	100K	5%	1/10W
R114	1-216-113-00	METAL CHIP	470K	5%	1/10W	R274	1-216-073-00	METAL CHIP	10K	5%	1/10W
R115	1-216-112-00	RES,CHIP	430K	5%	1/10W	R275	1-216-073-00	METAL CHIP	10K	5%	1/10W
R116	1-216-106-00	METAL CHIP	240K	5%	1/10W	R276	1-216-073-00	METAL CHIP	10K	5%	1/10W
R117	1-216-045-00	METAL CHIP	680	5%	1/10W	R277	1-216-073-00	METAL CHIP	10K	5%	1/10W
R118	1-216-081-00	METAL CHIP	22K	5%	1/10W	R278	1-216-073-00	METAL CHIP	10K	5%	1/10W
R119	1-216-105-91	RES,CHIP	220K	5%	1/10W	R279	1-216-073-00	METAL CHIP	10K	5%	1/10W
R120	1-216-073-00	METAL CHIP	10K	5%	1/10W	R281	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R121	1-216-089-91	RES,CHIP	47K	5%	1/10W	R282	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R122	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R283	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R123	1-216-097-91	RES,CHIP	100K	5%	1/10W	R284	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R124	1-216-073-00	METAL CHIP	10K	5%	1/10W	R285	1-216-097-91	RES,CHIP	100K	5%	1/10W
R125	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	R286	1-216-073-00	METAL CHIP	10K	5%	1/10W
R126	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R287	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R131	1-216-025-91	RES,CHIP	100	5%	1/10W	R288	1-216-097-91	RES,CHIP	100K	5%	1/10W
R132	1-216-025-91	RES,CHIP	100	5%	1/10W	R289	1-216-073-00	METAL CHIP	10K	5%	1/10W
R133	1-216-025-91	RES,CHIP	100	5%	1/10W	R291	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R141	1-216-081-00	METAL CHIP	22K	5%	1/10W	R292	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W	R293	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R143	1-216-049-91	RES,CHIP	1K	5%	1/10W	R294	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R144	1-216-097-91	RES,CHIP	100K	5%	1/10W	R295	1-216-097-91	RES,CHIP	100K	5%	1/10W
R145	1-216-121-91	RES,CHIP	1M	5%	1/10W	R296	1-216-073-00	METAL CHIP	10K	5%	1/10W
R151	1-216-049-91	RES,CHIP	1K	5%	1/10W	R301	1-216-085-00	METAL CHIP	33K	5%	1/10W
R152	1-216-049-91	RES,CHIP	1K	5%	1/10W	R302	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R153	1-216-049-91	RES,CHIP	1K	5%	1/10W	R303	1-216-025-91	RES,CHIP	100	5%	1/10W
R161	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R304	1-216-025-91	RES,CHIP	100	5%	1/10W
R162	1-216-073-00	METAL CHIP	10K	5%	1/10W	R305	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R163	1-216-295-91	SHORT	0			R306	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R164	1-216-113-00	METAL CHIP	470K	5%	1/10W	R307	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R165	1-216-112-00	RES,CHIP	430K	5%	1/10W	R308	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R166	1-216-106-00	METAL CHIP	240K	5%	1/10W	R309	1-216-081-00	METAL CHIP	22K	5%	1/10W
R167	1-216-045-00	METAL CHIP	680	5%	1/10W	R311	1-216-121-91	RES,CHIP	1M	5%	1/10W
R168	1-216-081-00	METAL CHIP	22K	5%	1/10W	R312	1-216-102-00	RES,CHIP	160K	5%	1/10W
R169	1-216-105-91	RES,CHIP	220K	5%	1/10W	R313	1-216-097-91	RES,CHIP	100K	5%	1/10W
R170	1-216-073-00	METAL CHIP	10K	5%	1/10W	R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R171	1-216-089-91	RES,CHIP	47K	5%	1/10W	R316	1-216-079-00	METAL CHIP	18K	5%	1/10W
R172	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R317	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-097-91	RES,CHIP	100K	5%	1/10W	R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R174	1-216-073-00	METAL CHIP	10K	5%	1/10W	R319	1-216-111-00	METAL CHIP	390K	5%	1/10W
R191	1-216-049-91	RES,CHIP	1K	5%	1/10W	R321	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R192	1-216-097-91	RES,CHIP	100K	5%	1/10W	R322	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R193	1-216-049-91	RES,CHIP	1K	5%	1/10W	R341	1-216-094-00	RES,CHIP	75K	5%	1/10W
R194	1-216-073-00	METAL CHIP	10K	5%	1/10W	R342	1-216-094-00	RES,CHIP	75K	5%	1/10W
R201	1-216-097-91	RES,CHIP	100K	5%	1/10W	R343	1-216-089-91	RES,CHIP	47K	5%	1/10W
R202	1-216-097-91	RES,CHIP	100K	5%	1/10W	R344	1-216-089-91	RES,CHIP	47K	5%	1/10W
R222	1-216-049-91	RES,CHIP	1K	5%	1/10W	R345	1-216-089-91	RES,CHIP	47K	5%	1/10W
R223	1-216-049-91	RES,CHIP	1K	5%	1/10W	R346	1-216-049-91	RES,CHIP	1K	5%	1/10W
						R347	1-216-065-91	RES,CHIP	4.7K	5%	1/10W

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R348	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R509	1-216-097-91	RES,CHIP	100K	5%	1/10W
R351	1-216-085-00	METAL CHIP	33K	5%	1/10W	R510	1-216-295-91	SHORT	0		
R352	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R511	1-216-109-00	METAL CHIP	330K	5%	1/10W
R353	1-216-025-91	RES,CHIP	100	5%	1/10W	R513	1-216-295-91	SHORT	0		
R354	1-216-025-91	RES,CHIP	100	5%	1/10W	R517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R355	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R518	1-216-025-91	RES,CHIP	100	5%	1/10W
R356	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	R519	1-216-025-91	RES,CHIP	100	5%	1/10W
R357	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	R520	1-216-025-91	RES,CHIP	100	5%	1/10W
R358	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	(RXD10AV:AEP,UK,G,CIS)					
R359	1-216-085-00	METAL CHIP	33K	5%	1/10W	R521	1-216-025-91	RES,CHIP	100	5%	1/10W
R371	1-216-045-00	METAL CHIP	680	5%	1/10W	(RXD10AV:AEP,UK,G,CIS)					
R372	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R522	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R373	1-216-045-00	METAL CHIP	680	5%	1/10W	R526	1-216-025-91	RES,CHIP	100	5%	1/10W
R374	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R527	1-216-025-91	RES,CHIP	100	5%	1/10W
R375	1-216-089-91	RES,CHIP	47K	5%	1/10W	R528	1-216-073-00	METAL CHIP	10K	5%	1/10W
R376	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	R529	1-216-025-91	RES,CHIP	100	5%	1/10W
R377	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	R530	1-216-025-91	RES,CHIP	100	5%	1/10W
R378	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	R532	1-216-025-91	RES,CHIP	100	5%	1/10W
R379	1-216-045-00	METAL CHIP	680	5%	1/10W	R533	1-216-025-91	RES,CHIP	100	5%	1/10W
R380	1-216-045-00	METAL CHIP	680	5%	1/10W	R535	1-216-025-91	RES,CHIP	100	5%	1/10W
R381	1-216-089-91	RES,CHIP	47K	5%	1/10W	R536	1-216-025-91	RES,CHIP	100	5%	1/10W
R382	1-216-089-91	RES,CHIP	47K	5%	1/10W	R537	1-216-025-91	RES,CHIP	100	5%	1/10W
R383	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R538	1-216-073-00	METAL CHIP	10K	5%	1/10W
R384	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R539	1-216-025-91	RES,CHIP	100	5%	1/10W
R385	1-216-045-00	METAL CHIP	680	5%	1/10W	R542	1-216-025-91	RES,CHIP	100	5%	1/10W
R386	1-216-045-00	METAL CHIP	680	5%	1/10W	R543	1-216-025-91	RES,CHIP	100	5%	1/10W
R387	1-216-089-91	RES,CHIP	47K	5%	1/10W	R549	1-216-049-91	RES,CHIP	1K	5%	1/10W
R401	1-216-025-91	RES,CHIP	100	5%	1/10W	R550	1-216-025-91	RES,CHIP	100	5%	1/10W
R402	1-216-085-00	METAL CHIP	33K	5%	1/10W	R551	1-216-025-91	RES,CHIP	100	5%	1/10W
R411	1-260-089-11	REGISTER	150	5%	1/2W	R552	1-216-025-91	RES,CHIP	100	5%	1/10W
R412	1-260-089-11	REGISTER	150	5%	1/2W	R553	1-216-025-91	RES,CHIP	100	5%	1/10W
R413	1-260-313-51	REGISTER	56	5%	1/2W	R554	1-216-025-91	RES,CHIP	100	5%	1/10W
R414	1-216-049-91	RES,CHIP	1K	5%	1/10W	R555	1-216-025-91	RES,CHIP	100	5%	1/10W
R415	1-216-073-00	METAL CHIP	10K	5%	1/10W	R556	1-216-025-91	RES,CHIP	100	5%	1/10W
R416	1-216-089-91	RES,CHIP	47K	5%	1/10W	R557	1-216-025-91	RES,CHIP	100	5%	1/10W
R417	1-216-049-91	RES,CHIP	1K	5%	1/10W	R558	1-216-049-91	RES,CHIP	1K	5%	1/10W
R418	1-260-089-11	REGISTER	150	5%	1/2W	R559	1-216-025-91	RES,CHIP	100	5%	1/10W
R419	1-260-089-11	REGISTER	150	5%	1/2W	R560	1-216-025-91	RES,CHIP	100	5%	1/10W
R431	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R561	1-216-025-91	RES,CHIP	100	5%	1/10W
R432	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R563	1-216-025-91	RES,CHIP	100	5%	1/10W
R433	1-216-097-91	RES,CHIP	100K	5%	1/10W	R565	1-216-025-91	RES,CHIP	100	5%	1/10W
R451	1-216-025-91	RES,CHIP	100	5%	1/10W	R566	1-216-025-91	RES,CHIP	100	5%	1/10W
R452	1-216-085-00	METAL CHIP	33K	5%	1/10W	R567	1-216-025-91	RES,CHIP	100	5%	1/10W
R461	1-260-089-11	REGISTER	150	5%	1/2W	R568	1-216-025-91	RES,CHIP	100	5%	1/10W
R462	1-260-089-11	REGISTER	150	5%	1/2W	R569	1-216-025-91	RES,CHIP	100	5%	1/10W
R463	1-260-315-51	REGISTER	56	5%	1/2W	R570	1-216-025-91	RES,CHIP	100	5%	1/10W
R464	1-216-049-91	RES,CHIP	1K	5%	1/10W	R571	1-216-025-91	RES,CHIP	100	5%	1/10W
R468	1-260-089-11	REGISTER	150	5%	1/2W	R572	1-216-073-00	METAL CHIP	10K	5%	1/10W
R469	1-260-089-11	REGISTER	150	5%	1/2W	R573	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R502	1-216-041-00	METAL CHIP	470	5%	1/10W	R574	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R575	1-216-073-00	METAL CHIP	10K	5%	1/10W
R504	1-216-025-91	RES,CHIP	100	5%	1/10W	R576	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-089-91	RES,CHIP	47K	5%	1/10W	R577	1-216-073-00	METAL CHIP	10K	5%	1/10W
R506	1-216-089-91	RES,CHIP	47K	5%	1/10W	R578	1-216-073-00	METAL CHIP	10K	5%	1/10W
R507	1-216-073-00	METAL CHIP	10K	5%	1/10W	R586	1-216-025-91	RES,CHIP	100	5%	1/10W
R508	1-216-033-00	METAL CHIP	220	5%	1/10W	R587	1-216-025-91	RES,CHIP	100	5%	1/10W
						R588	1-216-025-91	RES,CHIP	100	5%	1/10W

						MAIN	MOTOR (SLIDE)	MOTOR (TURN)	PANEL								
Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark								
R589	1-216-025-91	RES,CHIP	100	5%	1/10W			< CONNECTOR >									
R590	1-216-025-91	RES,CHIP	100	5%	1/10W												
R591	1-216-025-91	RES,CHIP	100	5%	1/10W	* CN801	1-568-947-11	PIN, CONNECTOR 9P									
R594	1-216-295-91	SHORT	0					< DIODE >									
R595	1-216-065-91	RES,CHIP	4.7K	5%	1/10W												
						D801	8-719-109-89	DIODE RD5.6ESB2									
R596	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	D804	8-719-911-19	DIODE 1SS119									
R597	1-216-045-00	METAL CHIP	680	5%	1/10W	D805	8-719-911-19	DIODE 1SS119									
		(RXD10AV:AEP,UK,G,CIS)						< IC >									
R597	1-216-053-00	METAL CHIP	1.5K	5%	1/10W												
		(GRX90AV:AUS)															
R597	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	IC801	8-759-274-09	IC BA6286N									
		(GRX90AV:E2,AR,MX)						< RESISTOR >									
R597	1-216-065-91	RES,CHIP	4.7K	5%	1/10W												
		(GRX90AV:EA,TH)															
						R801	1-249-401-11	CARBON 47 5% 1/4W F									
R597	1-216-295-91	SHORT	0	(RXD10AV:US,CND)				< SWITCH >									
R598	1-216-061-00	METAL CHIP	3.3K	5%	1/10W												
		(GRX90AV:EA)				S801	1-762-527-11	SWITCH, ROTARY (OPEN/CLOSE)									
R598	1-216-065-91	RES,CHIP	4.7K	5%	1/10W			*****									
		(GRX90AV:E2,AR,MX,AUS,TH/RXD10AV:AEP,UK,															
R598	1-216-295-91	SHORT	0	(GRX90AV:E3,SP)		*	1-658-577-11	MOTOR (TURN) BOARD									
R901	1-216-061-00	METAL CHIP	3.3K	5%	1/10W			*****									
								< CAPACITOR >									
R902	1-216-045-00	METAL CHIP	680	5%	1/10W												
R903	1-216-138-00	METAL CHIP	3.3	5%	1/8W	C701	1-162-306-11	CERAMIC 0.01uF 20% 16V									
R904	1-216-138-00	METAL CHIP	3.3	5%	1/8W	C702	1-126-964-11	ELECT 10uF 20% 50V									
R905	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	C705	1-162-306-11	CERAMIC 0.01uF 20% 16V									
R906	1-216-043-91	RES,CHIP	560	5%	1/10W			< CONNECTOR >									
R907	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P									
R908	1-216-073-00	METAL CHIP	10K	5%	1/10W	CN704	1-506-469-11	PIN, CONNECTOR 4P									
R909	1-216-075-00	METAL CHIP	12K	5%	1/10W			< DIODE >									
R910	1-216-073-00	METAL CHIP	10K	5%	1/10W												
R912	1-216-295-91	SHORT	0			D701	8-719-109-69	DIODE RD3.6ES-B2									
								< IC >									
R913	1-216-033-00	METAL CHIP	220	5%	1/10W												
R914	1-216-295-91	SHORT	0			IC701	8-759-633-65	IC M54641L									
R931	1-216-081-00	METAL CHIP	22K	5%	1/10W			< RESISTOR >									
R932	1-216-081-00	METAL CHIP	22K	5%	1/10W												
R933	1-216-081-00	METAL CHIP	22K	5%	1/10W	R706	1-249-411-11	CARBON 330 5% 1/4W									
						R707	1-249-401-11	CARBON 47 5% 1/4W F									

						A-4417-775-A	PANEL BOARD, COMPLETE	*****									
X510	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)															
X513	1-781-107-21	VIBRATOR, SERAMIC (16MHz)															

*	1-658-578-11	MOTOR (SLIDE) BOARD															

		< CAPACITOR >															
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V	C601	1-124-589-11	ELECT 47uF 20% 16V									
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V	C602	1-126-163-11	ELECT 4.7uF 20% 50V									
C805	1-126-964-11	ELECT	10uF	20%	50V	C603	1-162-306-11	CERAMIC 0.01uF 20% 16V									
						C604	1-162-294-31	CERAMIC 0.001uF 50V									
						C606	1-126-160-11	ELECT 1uF 20% 50V									
						C607	1-126-160-11	ELECT 1uF 20% 50V									

PANEL

Ref. No.	Part No.	Description	Remark
C610	1-124-589-11	ELECT 47uF 20% 16V	
C611	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C612	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C614	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C615	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C616	1-126-157-11	ELECT 10uF 20% 16V	
C617	1-162-303-11	CERAMIC 0.0033uF 30% 16V	
C618	1-126-157-11	ELECT 10uF 20% 16V	
C619	1-126-157-11	ELECT 10uF 20% 16V	
C620	1-126-163-11	ELECT 4.7uF 20% 50V	
C625	1-126-157-11	ELECT 10uF 20% 16V	
C627	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C628	1-126-157-11	ELECT 10uF 20% 16V	
C630	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C631	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C632	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C651	1-162-282-31	CERAMIC 100PF 10% 50V	
C652	1-162-282-31	CERAMIC 100PF 10% 50V	
C653	1-162-282-31	CERAMIC 100PF 10% 50V	
C654	1-162-282-31	CERAMIC 100PF 10% 50V	
C655	1-162-282-31	CERAMIC 100PF 10% 50V	
C656	1-162-282-31	CERAMIC 100PF 10% 50V	
C657	1-162-282-31	CERAMIC 100PF 10% 50V	
C658	1-162-282-31	CERAMIC 100PF 10% 50V	
C659	1-162-282-31	CERAMIC 100PF 10% 50V	
C660	1-162-282-31	CERAMIC 100PF 10% 50V	
C661	1-162-282-31	CERAMIC 100PF 10% 50V	
C662	1-162-282-31	CERAMIC 100PF 10% 50V	
C663	1-162-282-31	CERAMIC 100PF 10% 50V	
C664	1-162-282-31	CERAMIC 100PF 10% 50V	
C665	1-162-282-31	CERAMIC 100PF 10% 50V	
C666	1-162-282-31	CERAMIC 100PF 10% 50V	
C667	1-162-282-31	CERAMIC 100PF 10% 50V	
C668	1-162-282-31	CERAMIC 100PF 10% 50V	
C701	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C702	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C703	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C703	1-164-159-21	CERAMIC 0.1uF 50V	
C731	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C732	1-124-257-00	ELECT 2.2uF 20% 50V	
C733	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C734	1-162-215-31	CERAMIC 47PF 5% 50V	
C735	1-124-261-00	ELECT 10uF 20% 50V	
C736	1-162-290-31	CERAMIC 470PF 10% 50V	
C737	1-124-463-00	ELECT 0.1uF 20% 50V	
C739	1-162-215-31	CERAMIC 47PF 5% 50V	
C741	1-124-261-00	ELECT 10uF 20% 50V	
C742	1-162-282-31	CERAMIC 100PF 10% 50V	
C743	1-124-257-00	ELECT 2.2uF 20% 50V	
C747	1-164-159-21	CERAMIC 0.1uF 50V	
< CONNECTOR >			
CN601	1-784-745-11	CONNECTOR, FFC 23P	
< DIODE >			
D610	8-719-050-84	DIODE RB441Q-40T-77	

Ref. No.	Part No.	Description	Remark
D611	8-719-073-47	DIODE SML72923C-TP15 (REC/PAUSE START)	
D612	8-719-056-13	DIODE SML79423C-TP15 (CD ►►)	
D613	8-719-058-03	DIODE SEL5423E-TP15 (TAPE B ►►)	
D614	8-719-058-03	DIODE SEL5423E-TP15 (TAPE B ◄◄)	
D615	8-719-058-03	DIODE SEL5423E-TP15 (TAPE A ►►)	
D616	8-719-058-03	DIODE SEL5423E-TP15 (TAPE A ◄◄)	
D619	8-719-057-97	DIODE SEL5923A-TP15 (SYNC BASS L)	
D620	8-719-057-97	DIODE SEL5923A-TP15 (SYNC BASS H)	
D621	8-719-057-97	DIODE SEL5923A-TP15 (SYNC EQ)	
D622	8-719-063-93	DIODE SLR325VC-N-T32 (EFFECT)	
D624	8-719-063-93	DIODE SLR325VC-N-T32 (ON STOP)	
D625	8-719-057-97	DIODE SEL5923A-TP15 (DSP)	
D626	8-719-057-97	DIODE SEL5923A-TP15 (PRO LOGIC)	
D627	8-719-057-97	DIODE SEL5923A-TP15 (GROOVE)	
D628	8-719-063-93	DIODE SLR325VC-N-T32 (ENTERY NEXT)	
D629	8-719-063-93	DIODE SLR325VC-N-T32 (JOG)	
D630	8-719-057-97	DIODE SEL5923A-TP15 (- ◄◄)	
D631	8-719-057-97	DIODE SEL5923A-TP15 (+ ►►)	
D632	8-719-063-93	DIODE SLR325VC-N-T32 (TIMER SELECT)	
< GROUND PLATE >			
* EP601	1-537-738-21	TERMINAL, EARTH	
< FERRITE BEAD >			
FB601	1-412-473-21	INDUCTOR 0UH	
FB602	1-412-473-21	INDUCTOR 0UH	
< FLUORESCENT INDICATOR >			
FL601	1-517-831-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-589-13	IC TMP88CS76F-6004	
IC602	8-749-011-05	IC GP1U28X	
IC603	8-759-083-77	IC BA3830F	
IC604	8-759-342-19	IC NJU3716M-T2	
IC712	8-759-636-55	IC M5218AFP	
< JACK >			
J701	1-785-569-11	JACK (SMALL TYPE)	
J711	1-785-569-11	JACK (SMALL TYPE)	
< COIL >			
L601	1-410-509-11	INDUCTOR 10uH	
L602	1-410-517-11	INDUCTOR 47uH	
< TRANSISTOR >			
Q601	8-729-118-00	TRANSISTOR 2SB1116-L	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q604	8-729-422-57	TRANSISTOR UN4111	
Q605	8-729-422-57	TRANSISTOR UN4111	
Q606	8-729-900-80	TRANSISTOR DTC114ES	
Q607	8-729-900-74	TRANSISTOR DTC143TS	
Q608	8-729-900-74	TRANSISTOR DTC143TS	
Q609	8-729-900-74	TRANSISTOR DTC143TS	
Q610	8-729-900-74	TRANSISTOR DTC143TS	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q611	8-729-900-74	TRANSISTOR	DTC143TS			R652	1-249-411-11	CARBON	330	5%	1/4W
Q612	8-729-900-74	TRANSISTOR	DTC143TS			R653	1-249-413-11	CARBON	470	5%	1/4W F
Q613	8-729-900-74	TRANSISTOR	DTC143TS			R654	1-249-414-11	CARBON	560	5%	1/4W F
< RESISTOR >						R655	1-249-415-11	CARBON	680	5%	1/4W F
R600	1-247-903-00	CARBON	1M	5%	1/4W	R656	1-249-429-11	CARBON	10K	5%	1/4W
R601	1-247-807-31	CARBON	100	5%	1/4W	R657	1-249-410-11	CARBON	270	5%	1/4W F
R602	1-249-429-11	CARBON	10K	5%	1/4W	R658	1-249-411-11	CARBON	330	5%	1/4W
R603	1-247-807-31	CARBON	100	5%	1/4W	R659	1-249-413-11	CARBON	470	5%	1/4W F
R604	1-247-807-31	CARBON	100	5%	1/4W	R660	1-249-414-11	CARBON	560	5%	1/4W F
R605	1-249-429-11	CARBON	10K	5%	1/4W	R661	1-249-415-11	CARBON	680	5%	1/4W F
R606	1-249-401-11	CARBON	47	5%	1/4W F	R662	1-249-417-11	CARBON	1K	5%	1/4W F
R607	1-247-893-11	CARBON	390K	5%	1/4W	R663	1-249-418-11	CARBON	1.2K	5%	1/4W F
R608	1-247-893-11	CARBON	390K	5%	1/4W	R664	1-249-420-11	CARBON	1.8K	5%	1/4W F
R609	1-249-441-11	CARBON	100K	5%	1/4W	R665	1-249-422-11	CARBON	2.7K	5%	1/4W F
R610	1-249-429-11	CARBON	10K	5%	1/4W	R666	1-249-417-11	CARBON	1K	5%	1/4W F
R611	1-249-441-11	CARBON	100K	5%	1/4W	R667	1-249-417-11	CARBON	1K	5%	1/4W F
R612	1-249-401-11	CARBON	47	5%	1/4W F	R668	1-249-441-11	CARBON	100K	5%	1/4W
R613	1-249-435-11	CARBON	33K	5%	1/4W	R669	1-249-441-11	CARBON	100K	5%	1/4W
R614	1-247-895-91	CARBON	470K	5%	1/4W	R670	1-249-414-11	CARBON	560	5%	1/4W F
R615	1-249-429-11	CARBON	10K	5%	1/4W	R671	1-249-437-11	CARBON	47K	5%	1/4W
R616	1-249-441-11	CARBON	100K	5%	1/4W	R672	1-249-417-11	CARBON	1K	5%	1/4W F
R617	1-249-441-11	CARBON	100K	5%	1/4W	R673	1-249-437-11	CARBON	47K	5%	1/4W
R618	1-249-441-11	CARBON	100K	5%	1/4W	R674	1-249-417-11	CARBON	1K	5%	1/4W F
R619	1-249-441-11	CARBON	100K	5%	1/4W	R675	1-249-437-11	CARBON	47K	5%	1/4W
R620	1-249-441-11	CARBON	100K	5%	1/4W	R676	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-249-429-11	CARBON	10K	5%	1/4W	R678	1-249-407-11	CARBON	150	5%	1/4W F
R622	1-249-410-11	CARBON	270	5%	1/4W F	R679	1-249-407-11	CARBON	150	5%	1/4W F
R623	1-249-411-11	CARBON	330	5%	1/4W	R680	1-247-804-11	CARBON	75	5%	1/4W
R624	1-249-413-11	CARBON	470	5%	1/4W F	R681	1-249-407-11	CARBON	150	5%	1/4W F
R625	1-249-414-11	CARBON	560	5%	1/4W F	R682	1-247-804-11	CARBON	75	5%	1/4W
R626	1-249-415-11	CARBON	680	5%	1/4W F	R683	1-247-804-11	CARBON	75	5%	1/4W
R627	1-249-417-11	CARBON	1K	5%	1/4W F	R684	1-247-804-11	CARBON	75	5%	1/4W
R628	1-249-418-11	CARBON	1.2K	5%	1/4W F	R685	1-247-804-11	CARBON	75	5%	1/4W
R629	1-249-420-11	CARBON	1.8K	5%	1/4W F	R688	1-249-402-11	CARBON	56	5%	1/4W F
R630	1-249-422-11	CARBON	2.7K	5%	1/4W F	R689	1-249-402-11	CARBON	56	5%	1/4W F
R631	1-247-843-11	CARBON	3.3K	5%	1/4W	R690	1-249-402-11	CARBON	56	5%	1/4W F
R632	1-249-425-11	CARBON	4.7K	5%	1/4W F	R691	1-249-407-11	CARBON	150	5%	1/4W F
R633	1-249-427-11	CARBON	6.8K	5%	1/4W F	R693	1-249-407-11	CARBON	150	5%	1/4W F
R634	1-249-429-11	CARBON	10K	5%	1/4W	R694	1-249-407-11	CARBON	150	5%	1/4W F
R635	1-249-431-11	CARBON	15K	5%	1/4W	R695	1-249-402-11	CARBON	56	5%	1/4W F
R636	1-249-429-11	CARBON	10K	5%	1/4W	R696	1-249-402-11	CARBON	56	5%	1/4W F
R637	1-249-410-11	CARBON	270	5%	1/4W F	R697	1-249-407-11	CARBON	150	5%	1/4W F
R638	1-249-411-11	CARBON	330	5%	1/4W	R698	1-249-407-11	CARBON	150	5%	1/4W F
R639	1-249-413-11	CARBON	470	5%	1/4W F	R699	1-247-807-31	CARBON	100	5%	1/4W
R640	1-249-414-11	CARBON	560	5%	1/4W F	R700	1-247-807-31	CARBON	100	5%	1/4W
R641	1-249-415-11	CARBON	680	5%	1/4W F	R701	1-249-429-11	CARBON	10K	5%	1/4W
R642	1-249-417-11	CARBON	1K	5%	1/4W F	R702	1-249-429-11	CARBON	10K	5%	1/4W
R643	1-249-418-11	CARBON	1.2K	5%	1/4W F	R703	1-249-429-11	CARBON	10K	5%	1/4W
R644	1-249-420-11	CARBON	1.8K	5%	1/4W F	R704	1-249-429-11	CARBON	10K	5%	1/4W
R645	1-249-422-11	CARBON	2.7K	5%	1/4W F	R705	1-249-429-11	CARBON	10K	5%	1/4W
R646	1-247-843-11	CARBON	3.3K	5%	1/4W	R721	1-249-429-11	CARBON	10K	5%	1/4W
R647	1-249-425-11	CARBON	4.7K	5%	1/4W F	R722	1-249-417-11	CARBON	1K	5%	1/4W F
R648	1-249-427-11	CARBON	6.8K	5%	1/4W F	R723	1-249-441-11	CARBON	100K	5%	1/4W
R649	1-249-429-11	CARBON	10K	5%	1/4W	R724	1-249-417-11	CARBON	1K	5%	1/4W F
R650	1-249-429-11	CARBON	10K	5%	1/4W	R725	1-247-863-91	CARBON	22K	5%	1/4W
R651	1-249-410-11	CARBON	270	5%	1/4W F	R726	1-249-429-11	CARBON	10K	5%	1/4W
						R728	1-247-885-00	CARBON	180K	5%	1/4W

PANEL	SENSOR	SUB TRANS
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Ref. No.	Part No.	Description	Remark		
R729	1-247-807-31	CARBON	100	5%	1/4W
R731	1-249-440-11	CARBON	82K	5%	1/4W
R732	1-249-437-11	CARBON	47K	5%	1/4W
R733	1-249-440-11	CARBON	82K	5%	1/4W
R734	1-249-417-11	CARBON	1K	5%	1/4W
R735	1-249-420-11	CARBON	1.8K	5%	1/4W
R741	1-249-421-11	CARBON	2.2K	5%	1/4W
R742	1-249-421-11	CARBON	2.2K	5%	1/4W
R743	1-249-405-11	CARBON	100	5%	1/4W
< VARIABLE RESISTOR >					
RV712	1-225-739-11	RES, VAR 50K (MIC LEVEL)			
< SWITCH >					
S601	1-473-534-11	ENCODER, ROTARY (JOG/◀◀ ▶▶)			
S602	1-473-392-11	ENCODER, ROTARY (VOLUME)			
S611	1-762-875-21	SWITCH, KEYBOARD (SYNC BASS)			
S612	1-762-875-21	SWITCH, KEYBOARD (SYNC EQ)			
S613	1-762-875-21	SWITCH, KEYBOARD (KARAOKE PON/MPX)			
S614	1-762-875-21	SWITCH, KEYBOARD (NON STOP)			
S615	1-762-875-21	SWITCH, KEYBOARD (DSP)			
S616	1-762-875-21	SWITCH, KEYBOARD (DBFB)			
S617	1-762-875-21	SWITCH, KEYBOARD (ENTER/NEXT)			
S618	1-762-875-21	SWITCH, KEYBOARD (+ ▶▶)			
S619	1-762-875-21	SWITCH, KEYBOARD (- ◀◀)			
S620	1-762-875-21	SWITCH, KEYBOARD (GROOVE)			
S621	1-762-875-21	SWITCH, KEYBOARD (FLASH)			
S622	1-762-875-21	SWITCH, KEYBOARD (REPEAT STEREO/MONO)			
S623	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE DOLBY NR)			
S624	1-762-875-21	SWITCH, KEYBOARD (EDIT DIRECTION TUNER MEMORY)			
S625	1-762-875-21	SWITCH, KEYBOARD (REC/PAUSE START)			
S626	1-762-875-21	SWITCH, KEYBOARD (HI DUB)			
S627	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S628	1-762-875-21	SWITCH, KEYBOARD (LOOP)			
S629	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)			
S630	1-762-875-21	SWITCH, KEYBOARD (SPECTRUM ANALYZER)			
S636	1-762-875-21	SWITCH, KEYBOARD (DVD)			
S637	1-762-875-21	SWITCH, KEYBOARD (PRO LOGIC)			
S638	1-762-875-21	SWITCH, KEYBOARD (TIMER SELECT)			
S639	1-762-875-21	SWITCH, KEYBOARD (P FILE MEMORY)			
S640	1-762-875-21	SWITCH, KEYBOARD (GEQ CONTROL)			
S641	1-762-875-21	SWITCH, KEYBOARD (FILE SELECTOR)			
S642	1-762-875-21	SWITCH, KEYBOARD (EFFECT)			
S643	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)			
S644	1-762-875-21	SWITCH, KEYBOARD (CD ▶▶)			
S645	1-762-875-21	SWITCH, KEYBOARD (■)			
S646	1-762-875-21	SWITCH, KEYBOARD (TAPE B ▶▶)			
S647	1-762-875-21	SWITCH, KEYBOARD (TAPE B ◀◀)			
S648	1-762-875-21	SWITCH, KEYBOARD (TAPE A ▶▶)			
S649	1-762-875-21	SWITCH, KEYBOARD (TAPE A ◀◀)			
S650	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			
S651	1-762-875-21	SWITCH, KEYBOARD (CLOCK TIMER SET)			
< VIBRATOR >					
X601	1-781-312-11	VIBRATOR, CERAMIC (12.5MHz)			

Ref. No.	Part No.	Description	Remark		
*	1-658-576-11	SENSOR BOARD *****			
< IC >					
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391			
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28			

A-4419-128-A	SUB TRANS BOARD, COMPLETE (CND) *****				
A-4419-198-A	SUB TRANS BOARD, COMPLETE (US) *****				
A-4419-199-A	SUB TRANS BOARD, COMPLETE (AEP,UK,G,CIS) *****				
< CAPACITOR >					
C11	1-126-768-11	ELECT	2200uF	20%	16V
C12	1-164-159-21	CERAMIC	0.1uF		50V
C13	1-126-933-11	ELECT	100uF	20%	16V
C14	1-126-968-11	ELECT	100uF	20%	50V
C15	1-164-159-21	CERAMIC	0.1uF		50V
C16	1-126-948-11	ELECT	100uF	20%	35V
C21	1-113-925-11	CERAMIC	0.01uF	20%	250V
< CONNECTOR >					
CN11	1-564-321-00	PIN, CONNECTOR 2P (RXD10AV)			
* CN12	1-564-321-21	PIN, CONNECTOR 2P (RXD10AV)			
CN13	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P			
< DIODE >					
D11	8-719-991-33	DIODE 1SS133T-77			
D12	8-719-210-21	DIODE 11EQS04			
D13	8-719-210-21	DIODE 11EQS04			
D14	8-719-210-21	DIODE 11EQS04			
D15	8-719-210-21	DIODE 11EQS04			
D16	8-719-991-33	DIODE 1SS133T-77			
D17	8-719-200-82	DIODE 11ES2			
D18	8-719-200-82	DIODE 11ES2			
D19	8-719-200-82	DIODE 11ES2			
D20	8-719-200-82	DIODE 11ES2			
D21	8-719-936-43	DIODE HZS27-3LTD			
D22	8-719-109-63	DIODE RD3.0ESB2			
D23	8-719-991-33	DIODE 1SS133T-77			
< IC >					
IC11	8-759-450-47	IC BA05T			
< TRANSISTOR >					
Q11	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q12	8-729-040-19	TRANSISTOR RT1N137L-TP			
Q13	8-729-118-01	TRANSISTOR 2SB1116			
Q14	8-729-048-13	TRANSISTOR 2SC3616-KLM			
Q15	8-729-048-13	TRANSISTOR 2SC3616-KLM			
Q16	8-729-900-63	TRANSISTOR DTA124ES			
Q17	8-729-900-63	TRANSISTOR DTA124ES			

SUB TRANS

TRANS

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
< RESISTOR >							FH951	1-533-217-31	HOLDER, FUSE (EXCEPT AUS,TH)				
R11	1-249-429-11	CARBON	10K	5%	1/4W		FH952	1-533-217-31	HOLDER, FUSE (E2,E3,EA,SP,AR,TH)				
R12	1-249-441-11	CARBON	100K	5%	1/4W		FH953	1-533-217-31	HOLDER, FUSE (E2,E3,EA,SP,AR,AUS)				
R13	1-249-417-11	CARBON	1K	5%	1/4W	F	FH961	1-533-217-31	HOLDER, FUSE				
R15	1-249-429-11	CARBON	10K	5%	1/4W		FH962	1-533-217-31	HOLDER, FUSE				
R16	1-247-807-31	CARBON	100	5%	1/4W		< TRANSISTOR >						
R17	1-247-807-31	CARBON	100	5%	1/4W		Q971	8-729-048-52	TRANSISTOR 2SA1932(TP)(GRX90AV)				
R18	1-247-807-31	CARBON	100	5%	1/4W		< RESISTOR >						
R19	1-249-427-11	CARBON	6.8K	5%	1/4W	F	△ R951	1-219-122-91	FUSIBLE	0.33	5%	1/4W	F
R20	1-249-429-11	CARBON	10K	5%	1/4W		△ R952	1-219-122-91	FUSIBLE	0.33	5%	1/4W	F
R23	1-249-427-11	CARBON	6.8K	5%	1/4W	F	△ R953	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
< RELAY >							△ R961	1-202-725-00	SOLID	3.3M	10%	1/2W	
RY11	1-755-275-11	RELAY, AC POWER (RXD10AV:CND)					(RXD10AV:US,CND)						
RY11	1-755-276-11	RELAY, POWER (RXD10AV:US,AEP,UK,G,CIS)					△ R971	1-216-479-11	METAL OXIDE	560	5%	3W	F
*****							(GRX90AV)						
*	1-672-369-11	TRANS BOARD					R972	1-249-429-11	CARBON	10K	5%	1/4W	
*****							(GRX90AV)						
< CAPACITOR >							R973	1-249-429-11	CARBON	10K	5%	1/4W	
C971	1-128-563-11	ELECT	100uF	20%	100V		R974	1-247-807-31	CARBON	100	5%	1/4W	
C972	1-126-960-11	ELECT	1uF	20%	50V		R975	1-247-807-31	CARBON	100	5%	1/4W	
C973	1-126-948-11	ELECT	100uF	20%	35V		(GRX90AV)						
< CONNECTOR >							< SWITCH >						
CN951	1-564-321-00	PIN, CONNECTOR 2P					△ S951	1-771-291-11	SWITCH, POWER (VOLTAGE SELECTOR)	(GRX90AV)			
* CN952	1-564-526-11	PLUG, CONNECTOR 11P (RXD10AV)					△ S951	1-771-291-31	SWITCH, POWER (VOLTAGE SELECTOR)	(GRX90AV)			
* CN952	1-564-527-11	PLUG, CONNECTOR 12P (GRX90AV)					*****						
CN971	1-785-329-11	PIN, CONNECTOR (LIGHT ANGLE) 3P	(GRX90AV)				MISCELLANEOUS						

< DIODE >							5	1-233-545-11	TUNER UNIT (FM/AM)(AR,MX,AUS,TH)				
D971	8-719-200-82	DIODE 11ES2 (GRX90AV)					5	1-233-546-11	TUNER UNIT (FM/MW/SW)(E3,EA,SP)				
D972	8-719-936-43	DIODE HZS27-3LTD (GRX90AV)					5	1-693-443-11	TUNER UNIT (FM/AM)(AEP,UK,G,CIS)				
D973	8-719-109-63	DIODE RD3.0ESB2 (GRX90AV)					5	1-693-445-11	TUNER UNIT (FM/AM)(US,CND)				
< FUSE >							5	1-693-453-11	TUNER UNIT (FM/AM)(E2)				
△ F951	1-532-464-31	FUSE (T2.5AL/250V) (AEP,UK,G,CIS)					54	1-783-570-11	WIRE (FLAT TYPE)(19 CORE)				
△ F951	1-532-505-31	FUSE (T5AL/250V) (E2,E3,EA,SP,AR,MX)					55	1-769-976-11	WIRE (FLAT TYPE)(13 CORE)(140 mm)				
△ F951	1-533-310-11	FUSE (6.3A/125V) (US,CND)					55	1-773-008-11	WIRE (FLAT TYPE)(15 CORE)				
△ F952	1-532-464-31	FUSE (T3.15AL/250V) (AUS)					56	1-773-049-11	WIRE (FLAT TYPE)(17 CORE)				
△ F952	1-532-465-31	FUSE (T3.15AL/250V) (E2,E3,EA,SP,AR,TH)					58	1-569-007-11	ADAPTOR, CONVERSION 2P (E3)				
△ F953	1-532-464-31	FUSE (T2.5AL/250V) (E2,E3,EA,SP,AR,AUS)					58	1-569-008-21	ADAPTOR, CONVERSION 2P (EA,SP)				
△ F961	1-533-311-11	FUSE (8A/125V) (US,CND)					58	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)				
△ F961	1-533-949-31	FUSE (T8AL/250V) (EXCEPT US,CND)					△ 59	1-575-651-11	CORD, POWER (AEP,UK,G,CIS,EA,SP)				
△ F962	1-533-311-11	FUSE (8A/125V) (US,CND)					△ 59	1-575-653-11	CORD, POWER (E2,E3,MX,TH)				
△ F962	1-533-949-31	FUSE (T8AL/250V) (EXCEPT US,CND)					△ 59	1-690-608-11	CORD, POWER (AUS)				
< FUSE HOLDER >							△ 59	1-690-609-21	CORD, POWER (CND)				
FH901	1-533-217-31	HOLDER, FUSE (EXCEPT AUS,TH)					△ 59	1-783-531-21	CORD, POWER (US)				
FH902	1-533-217-31	HOLDER, FUSE (E2,E3,EA,SP,AR,TH)					△ 59	1-783-941-21	CORD, POWER (AR)				
FH903	1-533-217-31	HOLDER, FUSE (E2,E3,EA,SP,AR,AUS)					62	1-773-023-11	WIRE (FLAT TYPE)(15 CORE)(310 mm)				
FH911	1-533-217-31	HOLDER, FUSE					116	1-773-189-11	WIRE (FLAT TYPE)(23 CORE)				
FH912	1-533-217-31	HOLDER, FUSE					121	1-674-232-11	PUSH CATCH STOP BOARD				
							257	1-452-925-21	MAGNET ASSY				
							258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

HCD-GRX90AV/RXD10AV

Ref. No.	Part No.	Description	Remark
△ 301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
FL601	1-517-831-11	INDICATOR TUBE, FLUORESCENT	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (230AWR2)	
HP101	A-2056-683-A	DECK (A) ASSY, HEAD (230PWR2)	
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (230AWR2)	
HRPE101	A-2056-684-A	DECK (B) ASSY, HEAD (230PWR2)	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	
M101	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M901	1-698-792-11	FAN, DC (RXD10AV)	
M901	1-763-072-11	FAN, DC (GRX90AV)	
S811	1-473-335-11	ENCODER, ROTARY	
△ T11	1-433-590-11	TRANSFORMER, POWER (US,CND)	
△ T11	1-433-591-11	TRANSFORMER, POWER (AEP,UK,G,CIS)	
△ T951	1-433-552-11	TRANSFORMER, POWER (US)	
△ T951	1-433-553-11	TRANSFORMER, POWER (CND)	
△ T951	1-433-554-11	TRANSFORMER, POWER (AEP,UK,G,CIS)	
△ T951	1-433-555-11	TRANSFORMER, POWER (E2,E3,EA,SP,AR,MX,AUS,TH)	

HARDWARE LIST

#1	7-685-871-01	SCREW +BVTT 3X6 (S)
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#3	7-685-880-09	SCREW +BVTT 4X6 (S)
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#5	7-685-852-04	SCREW +BVTT 2X5 (S)
#7	7-682-553-04	SCREW +P 3X20
#8	7-685-851-04	SCREW +BVTT 2X4 (S)
#9	7-628-254-15	SCREW +PS 2.6X6
#10	7-628-254-50	SCREW +PS 2.6X16
#11	7-685-861-01	SCREW +BVTT 2.6X5 (S)
#12	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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SS-CN130/CN150

SERVICE MANUAL

REVISED

Discard SS-CN130/CN150 Service Manual
(No.9-922-814-11) previously issued.
This Service Manual contains it.



US Model

SS-CN130/CN150

Canadian Model

AEP Model

UK Model

E Model

Australian Model

SS-CN150

- This set is the center speaker system in
SA-VE130/VE150.

Photo : SS-CN130

SPECIFICATIONS

Speaker system	Full range x 2, magnetically shielded	Frequency range	90 - 20,000 Hz
Speaker unit	5 cm x 9 cm (2 x 3 ⁵ / ₈ inches, CONE TYPE)	Dimensions	Approx. 301 x 68 x 134mm (11 ⁷ / ₈ x 2 ³ / ₄ x 5 ³ / ₈ inches)(w/h/d) including front grille
Enclosure type	Bass reflex	Mass	SS-CN150: Approx. 1.2kg (2lb 10 oz)
Rated impedance	8 ohms		SS-CN130: Approx. 1kg (2lb 3oz)
Power handling capacity	Maximum input power: 120W	Supplied accessories	Speaker cords (Gray) 2.5m(1) Feet (4)
Sensitivity	88 dB (1W, 1m)		

Design and specifications are subject to change without notice.

CENTER SPEAKER SYSTEM

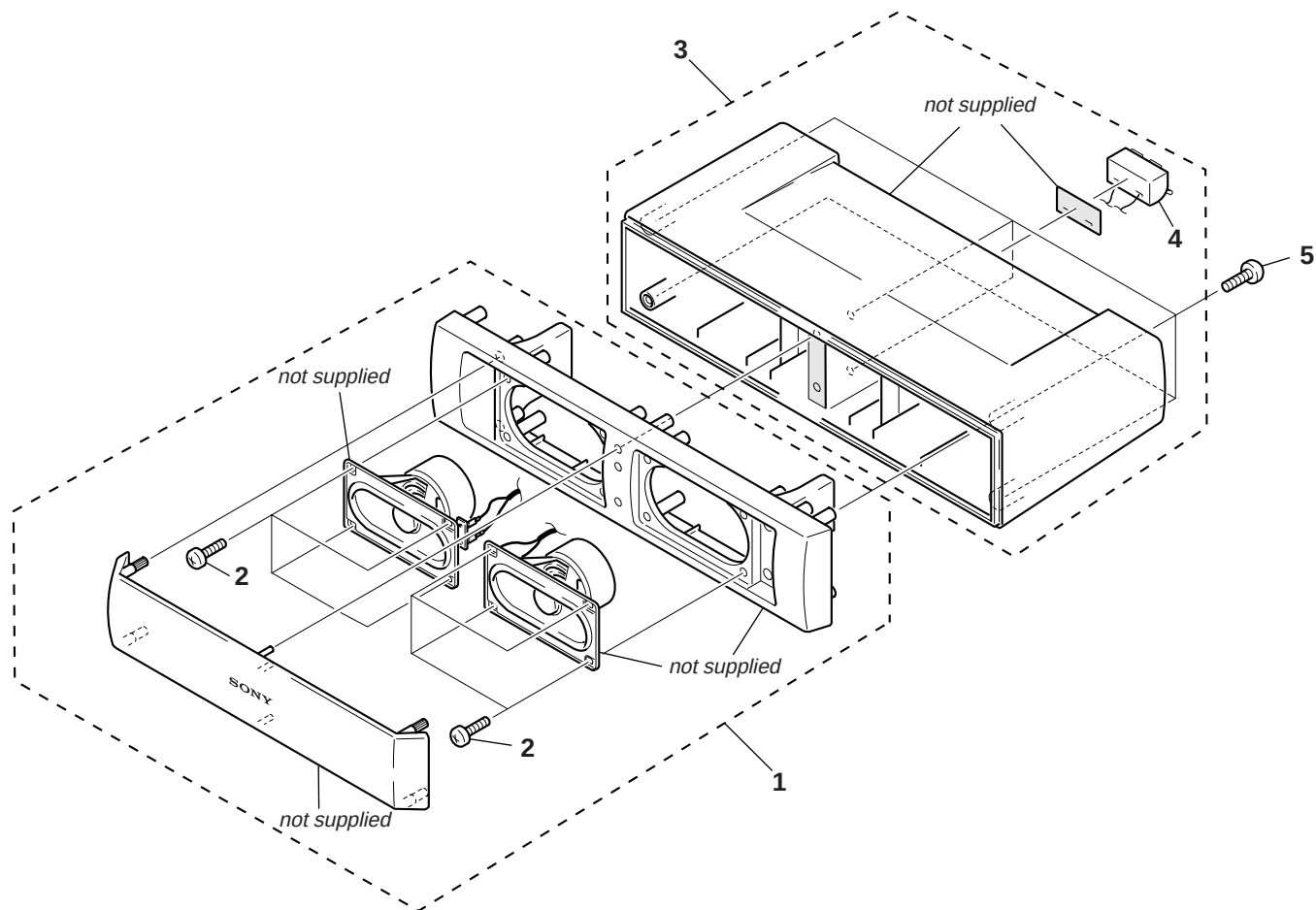


SONY®

EXPLODED VIEW AND PARTS LIST

NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	X-4950-137-1	FRONT PANEL ASSY (CN130)		4	1-537-775-11	TERMINAL BOARD	
1	X-4950-140-1	FRONT PANEL ASSY (CN150)		5	4-929-125-01	SCREW (M4 x 16),TAPPING	
2	7-685-659-79	SCREW + BVTP 4 x 8 TYPE2 IT-3					
* 3	X-4950-133-1	CABINET ASSY, SPEAKER (CN130)					
* 3	X-4949-950-1	CABINET ASSY, SPEAKER (CN150)					

SS-GRX50/GRX50G/GRX90AV/R550/RXD5S/ RXD7/RXD10AV/VX5A/VX5AG/VX5AJ

SERVICE MANUAL



- SS-GRX50/GRX50G/GRX90AV/R550/RXD5S/
RXD7/RXD10AV/VX5A/VX5AG/VX5AJ are
the speaker in MHC-GRX50/GRX90AV/R550/
RXD5/RXD7/RXD10AV/VX5/VX5J.

Photo: SS-GRX50 (R-ch)

US Model

SS-RXD10AV

Canadian Model

SS-RXD7/RXD10AV

AEP Model

UK Model

SS-R550/RXD5S/RXD10AV

E Model

SS-GRX50/GRX50G/VX5A/
VX5AG/VX5AJ

Australian Model

SS-GRX50/GRX90AV

Tourist Model

SS-VX5AJ

SPECIFICATIONS

Speaker system	3-way, bass-reflex type
Speaker units	
Woofer:	17 cm, cone type
Tweeter:	5 cm, cone type
Super Tweeter	2 cm, dome type
Nominal impedance	6 ohms (SS-R550/RXD5S/RXD7) 8 ohms (SS-GRX50/GRX50G/GRX90AV/ RXD10AV/VX5A/VX5AG/VX5AJ)
Dimensions (w/h/d)	Approx. 220 × 340 × 280 mm
Mass	Approx. 4kg net per speaker

Design and specifications are subject to change without notice.

SPEAKER SYSTEM



SONY®

NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Abbreviation
AED : North European
G : German
IA : Indonesian
TH : Thai

CH

Diagram illustrating the assembly of the Sony CCD camera, showing the main body (1) and various components:

- 1: Main camera body (labeled SONY).
- 2: Mounting bracket.
- 3: Screws for mounting bracket.
- 4: Screws for lens assembly.
- 5: Lens assembly.
- 6: Mounting bracket for the lens assembly.
- SP1: Small circular component (labeled *not supplied*).
- SP2: Small circular component.
- SP3: Small circular component.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
* 6	A-4411-398-A	CABINET (R) ASSY, SPEAKER (GRX50G/R550/VX5A)	
SP1	1-529-262-11	SPEAKER (2cm)	
SP2	1-529-197-11	SPEAKER (5cm) (VX5A: TH)	
SP2	1-529-202-11	SPEAKER (5cm)(EXCEPT: TH)	
SP2	1-529-283-11	SPEAKER (5cm) (GRX50: TH)	
SP3	1-529-200-11	SPEAKER (16cm) (RXD10AV)	
SP3	1-529-282-11	SPEAKER (16cm) (GRX50: TH)	
SP3	1-529-285-11	SPEAKER (16cm) (VX5A: TH)	
SP3	1-529-286-11	SPEAKER (16cm) (VX5A: E, IA/VX5AG)	
SP3	1-529-303-11	SPEAKER (16cm) (EXCEPT GRX50: TH/RXD10AV/VX5A/VX5AG)	
ACCESSORIES & PACKING MATERIALS			

1-558-848-11	CORD, SPEAKER (3m)		
3-866-397-31	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH, RUSSIAN, SWEDISH) (RXD10AV: AEP, G)		

ACCESSORIES & PACKING MATERIALS

- 1-558-848-11 CORD, SPEAKER (3m)
3-866-397-31 MANUAL, INSTRUCTION (ENGLISH, FRENCH,
GERMAN, SPANISH, RUSSIAN, SWEDISH)
(RXD10AV: AEP, G)